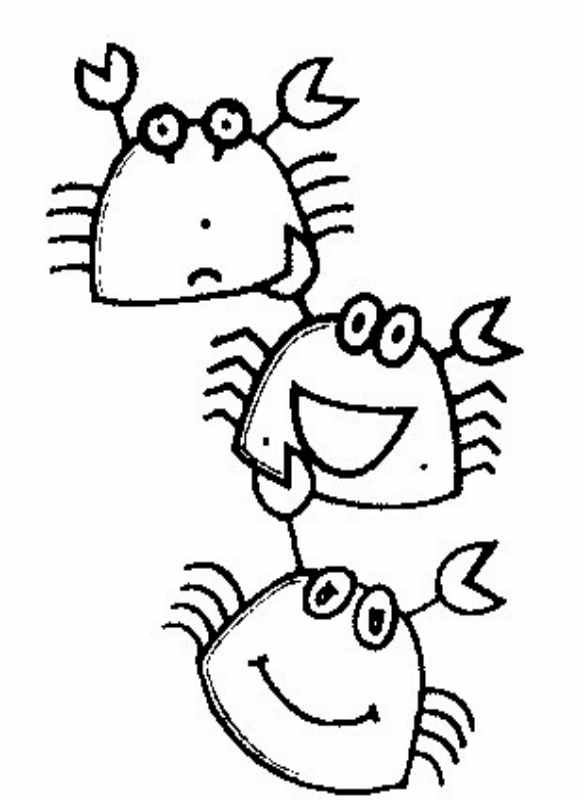
ANNUAL REPORT
ON
GYNECOLOGIC ONCOLOGY
2005



DIVISION OF GYNECOLOGIC ONCOLOGY

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

FACULTY OF MEDICINE, CHIANG MAI UNIVERSITY

CHIANG MAI, THAILAND

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ภาควิชาสูติศาสตร์และนรีเวชวิทยา
คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่

อนุสาขามะเร็งวิทยานรีเวช

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PREFACE

This Annual Report on Gynecologic Oncology 2005 has been produced with great contribution from Dr. Prapaporn Suprasert, Chief of the Division and her colleagues. This report shows rapid progression of cancer patients care and academic activity in gynecologic oncology. I wish the report be useful for medical personnel to learn from our experience and use as a reference in gynecologic oncology.

I would like to express my sincere thanks to my colleagues who work with perseverance and dedication. In particular, I am grateful to Associate Professor Prapaporn Suprasert, Chief of the Division, and her colleagues for their hardworking.

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PREFACE

This Annual Report 2005 is the ninth volume of our work in gynecologic oncology. We served about 800 gynecologic cancer patients in 2005 which was not different from previous years. Cervical cancer is still the leading cancer followed by ovarian and corpus cancers.

Over 160 Wertheim operations were performed in our hospital. Of these, 18 cases were carried out via laparoscopic approach by Dr. Chailert and his colleagues with satisfactory outcomes. I appreciate his perseverance and contribution in this field. The novel surgical techniques for radical hysterectomy, i.e. nerve - sparing procedure and mini-laparotomy are also developed by Dr. Kittipat and Dr. Sitthicha. Such approach is encouraging that the surgical wound is small at 7-9 cm. in length, postoperative pain is decreased and bladder function resumes earlier. The nerve – sparing radical hysterectomy is more frequently performed than before in our hospital. A randomized study of this technique compared with the conventional method will be conducted in 2006.

I was promoted to chief of Gynecologic Oncology Division 6 months ago after Dr. Jatupol has been appointed as Chairman of the OB&GYN Department. I would like to thank all my colleagues for their confidence and support. However, Dr. Jatupol also continues his encouragement despite his heavy workload.

I welcome Dr.Chumnan as our new staff. He has just graduated the fellowship training program from our institute in July 2005. He is very enthusiastic in research with 3 papers published in 2005 and 2 in press in 2006.

We had 1 fellow, Dr. Sue Valmadre a second-year fellow in gynecologic oncology from Royal Women's Hospital, Ranwick, Australia visit our unit for 3 months from March-June, 2005. In exchange, our young staff, Dr. Charuwan will go to work as clinical fellow for 1 year in her unit this January.

Five papers were presented in the international scientific meeting, 3 at the 57th Annual Congress of The Japan Society of Obstetrics and Gynecology (JSOG), Kyoto, Japan, 1 at the 14th Annual Congress of the International Society for Gynecologic Endoscopy (ISGE), London, U.K, and 1 at the 14th International Meeting of the European Society of Gynaecological Oncology (ESGO), Istanbul, Turkey, as appeared in the section II of this report.

This report is divided into 2 sections. The first section provides the statistics of all gynecologic cancer patients in the year 2005 with accumulated data since 1997. Section II presents the infrastructure, diagnostic procedures and operations in gynecologic cancer, abstracts of the publications and presentations of our work and related specialties.

I gratefully acknowledge the contributions of the following individuals without whom this Annual Report could not have been possible. My research nurse, Khun Aree with her assistant, Khun Jeeranan who collected and analysis the data. All staffs in Radiation Oncology, Gynecologic Pathology, Medical Oncology, and Oncology Nursing Divisions consistently collaborated on our patients care. I take this opportunity to appreciate my colleagues and fellows for their perseverance and dedication. Finally, a special word of thankfulness goes to our Head Department of OB&GYN, Professor Jatupol Srisomboon for his incessant support.

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  - Cancer of The Uterine Corpus
  - Cancer of The Vulva
  - Cancer of The Vagina
  - Cancer of The Fallopian Tube
  - Cancer of The Peritoneal
  - Gestational Trophoblastic Disease

TABLE 1 : Gynecologic Oncology Registry :Chiang Mai University 1997-2005

Site	1997	1998	1999	2000	2001	2002	2003	2004	2005
	Number(%)	Number(%)	Number(%)	Number(%)	Number(%)	Number(%)	Number(%)	Number(%)	Number(%)
Cervix	547 (75.3)	483 (72.9)	497 (75.3)	502 (71.3)	500 (70.8)	521 (69.7)	624 (71.7)	532 (66.9)	525 (66.4)
Ovary	87 (12.0)	83 (12.5)	82 (12.4)	96 (13.6)	90 (12.7)	110 (14.7)	111 (12.8)	126 (15.8)	121 (15.3)
Corpus	48 (6.6)	47 (7.1)	49 (7.4)	56 (8.0)	63 (8.9)	61 (8.2)	67 (7.7)	89 (11.2)	97 (12.3)
Vulva	20 (2.7)	21 (3.2)	15 (2.2)	29 (4.1)	23 (3.3)	25 (3.3)	29 (3.3)	22 (2.8)	19 (2.4)
Vagina	11 (1.4)	10 (1.5)	3 (0.5)	2 (0.3)	9 (1.3)	6 (0.8)	12 (1.4)	5 (0.6)	4 (0.5)
Fallopian tube	-	2 (0.3)	3 (0.5)	5 (0.7)	3 (0.4)	4 (0.5)	6 (0.7)	5 (0.6)	4 (0.5)
PPA*	-	-	2 (0.3)	1 (0.1)	-	2 (0.3)	7 (0.8)	3 (0.4)	4 (0.5)
GTTT**	14 (1.9)	16 (2.4)	8 (1.2)	13 (1.9)	18 (2.6)	19 (2.5)	14 (1.6)	13 (1.6)	17 (2.1)
Total	**727 (100)**	**662 (100)**	**660 (100)**	**704 (100)**	**706 (100)**	**748 (100)**	**870 (100)**	**795 (100)**	**791 (100)**

*PPA = Primary peritoneal adenocarcinoma

** GTT = Gestational trophoblastic tumors

1999 : Two primary cancers :	ovarian and cervical cancer	=	1	case
	ovarian and corpus cancer	=	4	cases
	corpus and cervical cancer	=	1	case
2000 : Two primary cancers :	ovarian and cervical cancer	=	1	case
	ovarian and corpus cancer	=	8	cases
2001 : Two primary cancers :	ovarian and cervical cancer	=	2	cases
	ovarian and corpus cancer	=	6	cases
2002 : Two primary cancers :	ovarian and cervical cancer	=	2	cases
	ovarian and corpus cancer	=	7	cases
	corpus and cervical cancer	=	1	case
	corpus and fallopian tube cancer	=	1	case
2003 : Two primary cancers :	ovarian and cervical cancer	=	1	case
	corpus and peritoneal cancer	=	1	case
2004 : Two primary cancers :	ovarian and cervical cancer	=	1	case
	ovarian and corpus cancer	=	5	cases
	cervical and fallopian tube cancer	=	1	case
	corpus and peritoneal cancer	=	1	case
2005 : Two primary cancers :	ovarian and cervical cancer	=	1	case
	ovarian and corpus cancer	=	13	cases
	cervical and corpus cancer	=	1	case
	corpus and peritoneal cancer	=	1	case

Operations and Procedures in Gynecologic Oncology

Operations and Procedures	1997 Number	1998 Number	1999 Number	2000 Number	2001 Number	2002 Number	2003 Number	2004 Number	2005 Number
Surgery for Ovarian & Tubal CA.	64	43	64	70	45	69	88	79	80
Surgery for Corpus CA.	33	28	26	36	43	39	47	60	75
Surgery for Vulvar CA.	10	14	5	19	12	14	21	19	14
Total Laparoscopic Hysterectomy	-	-	-	-	-	-	10	11	9
Wertheim Operation	55	77	113	120	116	135	150	151	149
Laparoscopic Radical Hysterectomy	-	-	-	-	-	-	-	4	18
Radical Parametrectomy	2	2	1	1	1	3	4	1	1
Laparoscopic Radical Parametrectomy	-	-	-	-	-	-	-	1	1
Simple Hysterectomy	118	110	155	182	121	89	43	35	52
Conization	66	65	79	13	14	22	16	9	10
LEEP	61	35	166	207	194	221	380	276	261
Cryosurgery	20	15	18	8	4	3	1	-	2
Colposcopy	227	235	463	371	369	306	357	399	499

Cancer of The Cervix

- **Distribution by**
  - Age
  - Gravida
  - Stage and Substage
  - HIV Status
  - Histological Type
  - Treatment

TABLE 2 : Cancer of The Cervix : Age Distribution.

Age	Number	Percent
20 – 30	6	1.2
31 – 40	86	16.3
41 – 50	209	39.6
51 – 60	127	24.2
61 – 70	64	12.2
71 – 80	28	5.5
81 – 90	5	1.0
Total	**525**	**100**

Minimum age = 25 year, Maximum age = 87 year, Mean age = 50.6 year

TABLE 3 : Cancer of The Cervix : Gravidity Distribution.

Gravida	Number	Percent
0*	21	4.0
1	77	14.7
2	177	33.7
3	107	20.4
4	54	10.3
>4	89	16.9
Total	**525**	**100**

Minimum gravidity = 0, Maximum gravidity = 19, Mean = 3.0

* Single = 3 cases

TABLE 4 : Cancer of The Cervix: Stage Distribution.

Stage	Number	Percent
I	230	43.9
II	171	32.6
III	100	19.1
IV	24	4.6
Total	**525**	**100**

TABLE 5 : Cancer of The Cervix: Stage and Substage Distribution.

	Stage	Number	Percent
I	Ia1	35	6.7
	Ia2	14	2.7
	Ib1	146	27.8
	Ib2	35	6.7
II	II a	30	5.7
	II b	141	26.9
III	III a	2	0.4
	III b	98	18.7
IV	IV a	11	2.1
	IV b	13	2.5
Total		**525**	**100**

Table 6 : HIV Status in Cervical Cancer Patients.

Stage	Number Negative (%)	Number Positive HIV(%)	Unknown*(%)	Total
Ia1	31 (5.9)	1 (0.2)	3 (0.6)	35 (6.7)
Ia2	14 (2.7)	-	-	14 (2.7)
Ib1	129 (24.6)	7 (1.3)	10 (1.9)	146 (27.8)
Ib2	26 (4.9)	2 (0.4)	7 (1.3)	35 (6.7)
IIa	23 (4.4)	1 (0.2)	6 (1.1)	30 (5.7)
IIb	76 (14.5)	7 (1.3)	58 (11.0)	141 (26.8)
IIIa	1 (0.2)	-	1 (0.2)	2 (0.4)
IIIb	49 (9.3)	5 (1.0)	44 (8.5)	98 (18.8)
IVa	6 (1.1)	-	5 (1.0)	11 (2.1)
IVb	7 (1.3)	-	6 (1.1)	13 (2.4)
Total	**362 (68.9)**	**23 (4.4)**	**140 (26.7)**	**525 (100)**

* Unknown = Data not available

Table 7 : Cancer of The Cervix : Distribution by Histological Type.

Histological Type	Number	Percent
Squamous cell CA.	**411**	**78.3**
Well differentiated	48	11.7
Moderately differentiated	229	55.7
Poorly differentiated	54	13.1
Not define differentiated	80	19.5
AdenoCA.	**79**	**15.1**
AdenosquamousCA.	**17**	**3.2**
Neuroendocrine tumor	**16**	**3.0**
Clear cell CA.	**1**	**0.2**
Rhabdomyosarcoma	**1**	**0.2**
Total	**525**	**100**

Table 8 : Treatment of Cancer of The Cervix.

Treatment	Number	Percent
Surgery	**114**	**21.7**
RH & BPL alone	91	79.8
TAH	19	16.6
TLH	2	1.8
RP & BPL	2	1.8
Chemotherapy	**4**	**0.8**
XRT± CT	**303**	**57.7**
Combined treatment	**92**	**17.5**
TAH + RT	1	1.1
TAH + CCRT	4	4.3
RH + Brachy therapy	6	6.5
RH + CCRT	42	45.6
RH + CT	7	7.6
NAC + RH	13	14.1
NAC + RH + CCRT	7	7.6
NAC + RH + CT	1	1.1
Pelvic node dissection (abandoned RH) + CCRT	9	9.8
NAC+ Pelvic node dissection (abandoned RH) + CCRT	2	2.2
Refuse Treatment	**2**	**0.4**
Symptomatic & Supportive Treatment	**1**	**0.2**
Awaiting for treatment	**9**	**1.7**
Total	**525**	**100**

RH = Radical Hysterectomy
RP = Radical Parametrectomy
TAH = Total Abdominal Hysterectomy (Extrafascial Hysterectomy)
TLH = Total Laparoscopic Hysterectomy
BPL = Bilateral Pelvic Lymphadenectomy
RT = Radiation Therapy
CT = Chemotherapy
CCRT = Concurrent Chemoradiation

N.B. Number of Radical Hysterectomy & BPL = 167 cases

Cancer of The Ovary

- **Distribution by**

  - Age
  - Gravidity
  - Marital Status
  - Histology
  - Histology Subtype
    - Epithelial Group
    - Germ Cell Tumor Group
    - Sex cord-stromal Group
    - Others Group
  - Stage
    - Epithelial Group
    - Germ Cell Group
    - Sex cord-stromal Group
    - Other Group
  - Stage and Histology
  - Treatment

TABLE 9 : Cancer of The Ovary **:** Age Distribution.

Age	Number	Percent
1 –10	2	1.6
11– 20	5	4.1
21 – 30	11	9.1
31 – 40	11	9.1
41 – 50	34	28.2
51 – 60	40	33.1
61 – 70	15	12.5
71 – 80	3	2.4
Total	**121**	**100**

Minimum age = 4 years., Maximum age = 80 years., Mean age = 47.0 years.

TABLE 10 : Cancer of The Ovary : Gravidity Distribution.

Gravidity	Number	Percent
Nulligravida	46	38.0
Multigravida	75	62.0
Total	**121**	**100**

TABLE 11 : Cancer of The Ovary : Marital Status Distribution.

Marital status	Number	Percent
Single	35	28.9
Married	71	58.7
Divorced	4	3.3
Widow	11	9.1
Total	**121**	**100**

TABLE 12 : Cancer of The Ovary : Histological Distribution.

Histology	Number	Percent
Coelomic Epithelium	91	75.2
Germ Cell	17	14.0
Sex cord-stromal	6	5.0
Other	7	5.8
Total	**121**	**100**

TABLE 13 : Epithelial Ovarian Cancer : Histological Subtype Distribution.

Subtype	Number	Percent
Serous LMP	1	1.1
Serous adeno CA	17	18.7
Mucinous LMP	17	18.7
Mucinous adeno CA	4	4.4
Endometrioid LMP	2	2.2
Endometrioid CA	13	14.3
Clear Cell CA	20	22.0
Mixed Epithelial CA	17	18.7
Total	**91**	**100**

TABLE 14 : Ovarian Germ Cell Tumor (GCT) : Histological Subtype Distribution.

Subtype	Number	Percent
Dysgerm	2	11.8
Endodermal sinus tumor	5	29.4
Immature teratoma	6	35.3
Squamous cell CA arising in mature teratoma	3	17.6
Mixed Germ Cell Tumor	1	5.9
Total	**17**	**100**

TABLE 15 : Sex cord-stromal tumor : Histological Subtype Distribution.

Subtype	Number	Percent
Granulosa cell tumor	6	100
Total	**6**	**100**

TABLE 16 : Others : Histological Subtype Distribution.

Subtype	Number	Percent
Undifferentiated CA	1	14.3
Sarcoma	1	14.3
Papillary CA.	1	14.3
Transitional Cell Tumor	1	14.3
Unknown	3	42.8
Total	**7**	**100**

TABLE 17 : Epithelial Ovarian Cancer : Stage Distribution.

Stage	Number	Percent
I	50	54.9
II	9	9.9
III	25	27.5
IV	2	2.2
Recurrence	5	5.5
Total	**91**	**100**

TABLE 18 : Germ Cell Ovarian Cancer: Stage Distribution.

Stage	Number	Percent
I	11	64.7
II	2	11.8
III	2	11.8
IV	2	11.8
Recurrence	-	-
Total	**17**	**100**

TABLE 19 : Sex cord-stromal : Stage Distribution.

Stage	Number	Percent
I	6	100
II	-	-
III	-	-
IV	-	-
Recurrence	-	-
Total	**6**	**100**

TABLE 20 : Others : Stage Distribution.

Stage	Number	Percent
I	2	28.6
II	-	-
III	1	14.3
IV	4	57.1
Recurrence	-	-
Total	**7**	**100**

TABLE 21 : Ovarian Cancer : Stage and Histology Distribution.

Stage	Epithelial	(%)	Germ Cell	(%)	Sex cord-stromal	(%)	Others	(%)
I	**50**	(54.9)	**11**	(64.7)	**6**	(100)	**2**	(28.6)
II	**9**	(9.9)	**2**	(11.8)	**-**	-	**-**	-
III	**25**	(27.5)	**2**	(11.8)	**-**	-	**1**	(14.3)
IV	**2**	(2.2)	**2**	(11.8)	**-**	-	**4**	(57.1)
Recurrence (referred)	**5**	(5.5)	**-**	-	**-**	-	**-**	-
Total	**91**	**(100)**	**17**	**(100)**	**6**	**(100)**	**7**	**(100)**

TABLE 22 : Cancer of The Ovary : Primary Treatment and Adjuvant Chemotherapy.

Treatment	With Adj.Chemo. (%)	Without Adj.Chemo (%)	Total (%)
Complete SSP.	15 (13.2)	23 (20.2)	38 (33.4)
Incomplete SSP.	2 (1.8)	4 (3.5)	6 (5.3)
Optimal Debulking	6 (5.3)	-	6 (5.3)
Suboptimal Debulking	15 (13.2)	-	15 (13.2)
Referred case			
With complete SSP	4 (3.5)	1 (0.9)	5 (4.4)
With incomplete SSP	11 (9.6)	12 (10.5)	23 (20.1)
With optimal debulking	5 (4.4)	-	5 (4.4)
With suboptimal debulking	16 (14.0)	-	16 (14.0)
Total	**74 (65.0)**	**40 (35.1)**	**114 (100)**

SSP = Surgical Staging Procedure

Complete SSP –refuse chemotherapy = 1 case

Suboptimal debulking –refuse chemotherapy = 1 case

Referred case with Incomplete SSP –refuse chemotherapy = 2 cases

Neoadjuvant Chemotherapy = 2 cases

Dead before Treatment = 1 case

TABLE 23 : Ovarian Cancer : Outcome of Treatment.

Stage / Outcome	I	II	III	IV	Recurrence	Total
Complete Chemotherapy						
- Under follow-up without disease	15	2	12	-	-	29
- Under follow-up with progress or persist of disease with 2nd line chemotherapy	1	-	3	-	3	7
Incomplete Chemotherapy						
- During treatment	9	5	11	5	-	30
- During treatment with progress of disease	-	1	-	-	-	1
- Lost to follow-up with disease	2	-	1	-	2	5
- Follow-up with S/S	1	1	1	1	-	4
No Chemotherapy						
- Under follow-up without disease	39	-	-	-	-	39
- Lost without disease	1	-	-	-	-	1
- Dead	-	-	-	1	-	1
Refuse Treatment	1	2	-	1	-	4
Total	**69**	**11**	**28**	**8**	**5**	**121**

S/S = Symptomatic & Supportive Treatment

Cancer of The Uterine Corpus

- **Distribution by**

  - Age
  - Menopausal Status
  - Underlying Medical Diseases
  - Parity and Marital Status
  - Clinical Staging
  - Surgical Staging
  - Histology
  - Treatment

Table 24 : Cancer of The Corpus : Age Distribution.

Age	Number	Percent
20 – 30	1	1.0
31 – 40	6	6.2
41 – 50	13	13.4
51 – 60	42	43.3
61 – 70	26	26.8
71 – 80	9	9.3
Total	**97**	**100**

Minimum age = 30 years., Maximum age = 79 years., Mean age = 56.8 years.

Table 25 : Cancer of The Corpus: Distribution by Menopausal Status.

Menopausal Status	Number	Percent
Premenopause	23	23.7
Postmenopause	74	76.3
Total	**97**	**100**

Table 26 : Cancer of The Uterine Corpus: Distribution by Underlying Medical Diseases.

Medical Disease	Number	Percent
No	47	48.5
Diabetes Mellitus (DM)	5	5.2
Hypertension (HT)	22	22.7
HT+ DM	15	15.5
HT+ Heart Disease	1	1.0
HT+ Thyrotoxicosis	1	1.0
Heart Disease	4	4.1
Hyperlipidemia	2	2.1
Total	**97**	**100**

Table 27 : Cancer of The Uterine Corpus : Distribution by Parity.

Parity	Number	Percent
0	11	11.3
1	8	8.2
2	22	22.7
3	20	20.6
4	8	8.2
>4	13	13.4
Single*	15	15.5
Total	**97**	**100**

Minimum = 0 , Maximum = 10 , Single * = 15

Table 28 : Cancer of The Uterine Corpus : Distribution by Marital Status.

Marital Status	Number	Percent
Single	15	15.5
Married	58	59.8
Divorced	1	1.0
Widow	23	23.7
Total	**97**	**100**

Table 29 : Cancer of The Uterine Corpus : Distribution by Surgical Staging.

Surgical Stage		Number	Percent
I	Ia	13	13.4
	Ib	23	23.7
	Ic	18	18.6
II	IIa	3	3.1
	IIb	8	8.2
III	IIIa	7	7.2
	IIIc	9	9.3
IV	IVb	11	11.3
Recurrence (referred)		2	2.1
Awaiting for treatment		3	3.1
Total		**97**	**100**

Table 30 : Cancer of The Corpus : Histologic Distribution.

Histology	Number	Percent
Endometrioid Adeno CA	**68**	**70.1**
Grade I	35	51.5
Grade II	13	19.1
Grade III	20	29.4
Endometrial Stromal Sarcoma	**6**	**6.2**
Mixed Endometrioid and Serous Adeno CA.	**4**	**4.1**
Mixed Endometrioid and Mucinous AdenoCA	**1**	**1.0**
Mixed Endometrioid and Clear Cell AdenoCA.	**6**	**6.2**
Mixed Endometrioid and Leiomyosarcoma	**4**	**4.1**
Clear Cell CA	**4**	**4.1**
Uterine Papillary Serous CA	**1**	**1.0**
Undifferentiated Malignant Tumor	**3**	**3.1**
Total	**97**	**100**

Table 31 : Treatment of Corpus Cancer.

Treatment	Number	Percent
Surgery	**88**	**90.7**
Complete SSP	21	23.9
Complete SSP + RT	32	36.4
Complete SSP + CT	14	15.9
Complete SSP + Hormone	1	1.1
Incomplete SSP	6	6.8
Incomplete SSP + RT	5	5.7
Incomplete SSP + CT	5	5.7
Incomplete SSP + CCRT	3	3.4
Incomplete SSP + Hormone	1	1.1
No Surgery	**6**	**6.2**
RT	3	50.0
CT	1	16.7
CCRT	2	33.3
Awaiting for treatment	**3**	**3.1**
Total	**97**	**100**

SSP = Surgical Staging Procedure
RT = Radiation Therapy
CT = Chemotherapy
CCRT = Concurrent Chemoradiation

Table 32: Outcome of Treatment of Corpus Cancer.

Outcome	Number	Percent
- During Rx	23	23.7
- Under Follow-up without Disease	66	68.0
- Under Follow-up with Disease	1	1.0
- Lost to Follow-up with Disease	4	4.2
- Awaiting for treatment	3	3.1
Total	**97**	**100**

Cancer of The Vulva

- **Distribution by**

  - Age
  - Stage
  - Histology
  - Treatment

Table 33 : Cancer of The Vulva : Age Distribution.

Age	*Number*	*Percent*
31 – 40	1	5.3
41 – 50	5	26.3
51 – 60	5	26.3
61 – 70	6	31.5
71 – 80	1	5.3
81 – 90	1	5.3
Total	**19**	**100**

Minimum age = 36 years., Maximum age = 83 years., Mean age = 57.8 years.

Table 34 : Cancer of The Vulva : Stage Distribution.

Stage	Number	Percent
I	4	21.1
II	4	21.1
III	7	36.8
IV	4	21.1
Total	**19**	**100**

Table 35 : Cancer of The Vulva : Histological Type Distribution.

Histological type	Number	Percent
Squamous cell CA.	**15**	**78.9**
Well-differentiated	9	60.0
Moderately-differentiated	4	26.7
Poorly-differentiated	1	6.6
Not defined	1	6.6
Sarcoma	**1**	**5.3**
Small cell CA.	**1**	**5.3**
Basal cell CA.	**1**	**5.3**
Poorly differentiated CA.	**1**	**5.3**
Total	**19**	**100**

Table 36 : Treatment of cancer of the vulva.

Treatment	Number	Percent
Surgery only	**4**	**21.1**
WLE + BGND	1	25.0
RLE + BGND	3	75.0
XRT± CT	**5**	**26.3**
Combined treatment	**10**	**52.6**
Radical hemivulvectomy + RT ± CT	2	20.0
RLE + RT± CT	1	10.0
BGND + RT± CT	5	50.0
WLE + RT± CT	2	20.0
Total	**19**	**100**

RLE = Radical local excision
WLE = Wide local excision
BGND = Bilateral groin node dissection
RT = Radiation Therapy
CT = Chemotherapy

Cancer of The Vagina

- **Distribution by**
  - Age
  - Stage
  - Histology
  - Treatment

Table 37 : Cancer of The Vagina : Age Distribution.

Minimum age	=	60	years.
Maximum age	=	73	years.
Mean age	=	68.8	years.

Table 38 : Cancer of The Vagina : Stage Distribution.

Stage	Number	Percent
I	-	-
II	1	25.0
III	2	50.0
IV	1	25.0
Total	**4**	**100**

Table 39 : Cancer of The Vagina : Histological Type Distribution.

Histological type	Number	Percent
Squamous cell CA.	**4**	**100.0**
Moderately-differentiated.	1	25.0
Poorly-differentiated.	3	75.0
Total	**4**	**100**

All 4 cases were treated by radiation ± chemotherapy.

Cancer of The Fallopian Tube

Table 40: Cancer of The Fallopian Tube : 2005

Data	**Case 1**	**Case 2**
Hospital number	2786874	2248830
Age (yrs)	46	54
Marital status	Married	Single
Parity	-0-	-0-
Presenting symptoms	Abdominal pain	Abdominal pain, Vaginal bleeding
Treatment	Referred case ; TAH + BSO + appendectomy + partial omentectomy (Dec 31,2004)	Suboptimal debulking ; TAH + BSO + appendectomy + partial omentectomy + peritoneal washing (Apr 27, 2005)
Histology	Right + Left fallopian tube; serous adeno CA gr 2 involve through muscular layer into adnexal soft tissue + omental tissue Metastasis to Rt ovary, corpus, omentum, appendix	Right fallopian tube; serous adeno CA gr3, involve through outer surface. Residual mass at rectosigmoid colon 10x5x5 cm
Stage	IV (liver metas.)	IIC
Adjuvant therapy	Chemotherapy (carboplatin + paclitaxel)	Chemotherapy (carboplatin + paclitaxel)
Outcome	Under follow-up, Disease free after 6 courses of chemotherapy	Post chemotherapy 6th – persistent of disease ; mass 4 x 5 cm at rectosigmoid area Oral Etoposide -during treatment

Data	**Case 3**	**Case 4**
Hospital number	2828805	2842951
Age (yrs)	54	50
Marital status	Widow	Divorced
Parity	3-0-0-3	2-0-0-2
Presenting symptoms	Abdominal mass, Vaginal bleeding	Abdominal pain, Vaginal discharge
Treatment	Suboptimal debulking ; TAH + BSO + appendectomy + partial omentectomy + para-aortic lymph node sampling + sigmoid biopsy + ascites collection for cytology (Aug 15, 2005)	Referred case ; TAH + BSO + appendectomy + partial omentectomy + para-aortic lymph node sampling (Sep 21, 2005)
Histology	Right + Left ovaries ; endometrioid adeno CA gr 3 suggestion of metastasis from fallopian tubes Metastasis to ; corpus, cervix, omentum, para-aortic lymph nodes 3/3, appendix, sigmoid colon Residual tumor ; at rectum 7 x 2 cm, urinary bladder 3 x 5 cm, cul de sac 6 x 7 cm	Left fallopian tube; mixed endometrioid adeno CA + serous adeno CA gr 3 tumor invade adnexal soft tissue Metastasis; to both ovaries, corpus, para-aortic lymph node 1/1
Stage	IIIC	IV
Adjuvant therapy	Chemotherapy - carboplatin (AUC 6) x 4 courses ca125 rising - carboplatin + paclitaxel	Chemotherapy (carboplatin + paclitaxel)
Outcome	During treatment	During treatment

Cancer of The Peritoneum

Table 41 : Cancer of The Peritoneum.

Data	Case 1	Case 2	**Case 3**	Case 4
Hospital number	2815737	2827198	2831432	2836295
Age (yrs)	52	57	31	53
Marital status	Married	Married	Married	Married
Parity	1-0-0-1	2-0-3-2	-0-	0-0-1-0
Presenting symptoms	Abdominal distend	Abdominal distend	Abdominal mass, Vaginal bleeding	Abdominal distend Vaginal bleeding
Treatment	(Inoperable case) Explore lap to omental biopsy + pelvic + abdominal + peritoneal biopsy + ascites collection (July 6, 2005)	Suboptimal debulking ; Explore lap to biopsy at rectosigmoid mesentery + pelvic peritoneum (Aug 18, 2005)	Obtimal debulking ; TAH+BSO + omentectomy + appendectomy + pelvic lymph node dissection + para-aortic lymph node sampling + ascites collection (Aug 25, 2005)	-Neoadjuvant chemotherapy (carboplatin + paclitaxel) x2 -TAH+BSO+ partial omentectomy + ascitic collection (Dec 2, 2005)
Histology	Tissue from pelvic peritoneum, omentum ; poorly differentiated CA + anaplastic area consist with serous adeno CA Cyto ; positive for adeno CA	Tissue from mesenteric biopsy; adeno CA with micropapillary pattern	Left ovary; endometrioid adeno CA gr 3, ruptured on outer surface Suggestion for peritoneal CA Corpus ; endometrioid adeno CA gr 1 confined to endometrium Cyto ; suspicious for CA	Both ovaries ; serous adenoCA gr 3 tumor growth on surface Metastasis to corpus, cervix, omentum Cyto; positive for adeno CA Suggest for peritoneal CA
Stage	IIIC	IIIC	IC + CA Corpus IA g1	IIIC
Adjuvant therapy	-	Chemotherapy carboplatin+ paclitaxel	Chemotherapy carboplatin	Chemotherapy carboplatin+paclitaxel
Outcome	Dead ~Sep, 2005 (develop hospital pneumonia post operation, no adjuvant chemotherapy)	During treatment	During treatment	During treatment

Gestational Trophoblastic Diseases

- Gestational Trophoblastic Tumors
- Molar Pregnancy

TABLE 42 : Gestational Trophoblastic Tumors in 2005.

No	H.N.	Age (yr)	HCG titer	Diagnosis	Class	FIGO stage	Treatment	Result
1	2788934	20	243	Persist. mole	NMGTN	I	MTX+FA X2	Remission
2	2787640	45	5,859	Persist. mole	NMGTN	I	MTX+FA X3	Loss to follow up
3	2647962	46	24,680	Persist. mole	NMGTN	I	MTX+FA X4 -> Act D X2 -> TAH	Remission
4	2807700	39	30,720	Persist. mole	MGTN Lung metas	III	EMA X8	Remission
5	2576187	28	21,370	Persist. mole	MGTN Vg wall metas	II	EMA X8	Remission
6	2827561	29	2,640,000	Persist. mole Poor prog	MGTN Liver, lung, brain metas	IV HIV +ve	EMA X8 XRT brain 2,000 cGy	Under treatment
7	2827949	23	2,297	Persist. mole Good prog	MGTN Lung metas	III	MTX+FA X5	Remission
8	2829337	47	167,250	Persist. mole Poor prog	MGTN Lung metas	III	EMA X7	Remission
9	2825902	26	166,700	Persist. mole	NMGTN	I	MTX+FA	Under treatment
10	2832187	30	138,700	Persist. mole Poor prog	MGTN Lung metas	III	TAH -> EMA X4 -> PE	Under treatment
11	2848359	35	82,480	Invasive mole	MGTN Lung metas	III	EMA X3	Under treatment
12	2848862	46	27,930	Persist. mole	NMGTN	I	MTX+FA	Under treatment
13	2850437	18	58.58	CCA	MGTN Lung, Vg wall metas	III	MTX+FA	Under treatment
14	2851206	26	533.9	Persist. mole	NMGTN	I	MTX+FA	Under treatment
15	2800460	20	817	Persist. mole	NMGTN	I	MTX+FA X3 -> Act D X1 -> EMA X1 -> PI	Under treatment
16	2852769	32	1.748	Persist. mole	NMGTN	I	MTX+FA	Under treatment
17	2854559	41	28,300	Persist. mole	NMGTN	I	MTX+FA	Under treatment

NMGTN = Nonmetastatic Gestational Trophoblastic Neoplasia
CCA = Chorio carcinoma
Persist. mole = Persistent mole
Act D = Actinomycin D
MTX + FA = Methotrexate + Folinic Acid
PI = Cisplatin + Ifosfamide
EMA = Etoposide + Methotrexate + Actinomycin D
PE = Cisplatin + Etoposide

TABLE 43 : Molar Pregnancy in 2005.

No	Hospital Number	Age (yr)	Gravida	GA (wk)	UT. Size (wk)	HCG titer	Risk	Treatment	Result
1	2799296	37	2	12	12	146,750	High	Dilatation & Curettage	Remission
2	2848337	31	1	18	9	<100,000	Low	Suction Curettage	Remission
3	2797897	24	1	12	12	322,000	High	Suction Curettage	Remission
4	2819690	25	2	12	18	882,700	High	Suction Curettage	Remission
5	2858429	36	2	10	10	203,250	High	Suction Curettage	Under follow up

SECTION II

- **Medical Personnel and Facilities**
- **Diagnostic Procedures and Gynecologic Oncology Operations**
- **Publications & Presentations**

Medical Personnel and Facilities

TABLE 45 : Medical Personnel and Facilities in Division of Gynecologic Oncology, Chiang Mai University

Personnel and Facilities	Number
Medical Doctor	8
General Nurse	28
Practical Nurse	24
Helper	9
Research Nurse	1
Research Assistant	1
Inpatient Bed	62
Outpatient Bed	7
Colposcope	3
Cryosurgery Set	1
Radiosurgery (Surgitron)	2

Funds (**กองทุนของหน่วยมะเร็งวิทยานรีเวช**)

1. Gynecologic Cancer Fund (กองทุนมะเร็งทางนรีเวช)
2. Cervical Cancer Surgery Fund (กองทุนผ่าตัดมะเร็งปากมดลูก)

1st Year Fellow

- Jiraprapa Natee, M.D.
- Napat Injumpa, M.D.

2nd Year Fellow

- Apichart Khobjai, M.D.
- Anchalee Chandacham, M.D.

Radiation Oncologists

1. Associate Professor Vicharn Lorvidhaya, M.D.
2. Professor Vimol Sukthomya, M.D.
3. Assistant Professor Anan Tonusin, M.D.
4. Imjai Chitapanarux, M.D.
5. Pimkhuan Kamnerdsupaporn, M.D.
6. Ekkasit Tharavijitkul, M.D.

Gynecologic Pathologists

1. Associate Professor Sumalee Siriaunkgul, M.D.
2. Associate Professor Surapan Khunamornpong, M.D.

Medical Oncologists

1. Professor Sumitra Thongprasert, M.D.
2. Chaiyut Charoentum, M.D.

Diagnostic Procedures and Operations

TABLE 46 : Diagnostic Procedures and Operations for Cervical Neoplasia.

Procedures & Operations	Number
Colposcopy	499
LEEP	261
Cervical Conization	10
TLH	9
Simple Hysterectomy	52
Radical Parametrectomy & PL	1
Laparoscopic Radical Parametrectomy & PL	1
Abandoned Radical Hysterectomy & PL	11
Laparoscopic Radical Hysterectomy & PL	18
Wertheim Operation	149

LEEP = Loop Electrosurgical Excision Procedure
TLH = Total Laparoscopic Hysterectomy
PL = Pelvic Lymphadenectomy

Table 47 : Operations for Ovarian, Corpus and Vulvar Cancer.

Operations	Number
Primary CRS for Ovarian Cancer	65
Secondary CRS for Ovarian Cancer	9
Primary CRS for Fallopian Tube Cancer	2
Primary CRS for Peritoneal Cancer	4
Surgical Staging for Corpus Cancer	75
Wide Local Excision & BGND	3
Radical Hemivulvectomy & BGND	2
Radical Local Excision & BGND	4
Bilateral Groin Node Dissection	5

CRS = Cytoreductive Surgery
BGND = Bilateral Groin Node Dissection

PUBLICATIONS & PRESENTATIONS

THERMAL INJURY IN CERVICAL SPECIMENS OBTAINED FROM LOOP ELECTROSURGICAL EXCISION PROCEDURE (LEEP)

Jatupol Srisomboon*, Sumalee Siriangkul**,
Sangwal Rugpao*, Kasem Ruangrongmorakot*,
Prapaporn Suprasert*, Chailert Phongnarisorn*

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** Department of Pathology,
Faculty of Medicine, Chiang Mai University

Between August 1, 1995 and November 30, 1997, 178 patients with abnormal cervical cytology were evaluated by colposcopy and underwent loop electrosurgical excision procedures (LEEP) at Maharaj Nakorn Chiang Mai Hospital. the indications for LEEP were unsatisfactory colposcopy (59), pathological evaluation (54), exclusion of invasive cancer (23), discrepancy between cytology and biopsy (14), therapeutic purpose (13), microinvasive carcinoma from biopsy (11), and exclusion of adenocarcinoma (4). Thermal injury at surgical margins could be pathologically assessed in 177 patients. All specimens had some degree of thermal injury including mild degree 91 cases (51.4 %), moderate degree 65 cases (36.7 %), and severe degree 21 cases (11.9 %). Only one specimen was pathologically inevaluable due to severe thermal injury. In conclusion, LEEP provided high rate of thermal injury at surgical margins, but most of the cervical specimens were pathologically evaluable.

Published in : Thai Cancer Journal 1997; 23 : 53-57.

ADENOCARCINOMA OF THE UTERINE CERVIX : A CLINICOPATHOLOGICAL STUDY

Sumalee Siriaunkgul,* Sumonmal Maleemonkol,**
Surapan Khunamornpong,* Viruch Charoeniam,**
Pawares Isariyodom,** Aree Pantusart .**

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** Department of Obstetrics and Gynaecology
Faculty of Medicine, Chiang Mai University

Objective : To determine factors which correlated to the risk of recurrence for adenocarcinoma of the uterine cervix treated initially by surgery.

Design : A retrospective study. **Setting:** University Hospital.

Subjects : The clinical information and pathologic specimens of adenocarcinoma of the uterine cervix were retrospectively reviewed for 74 patients who initially had been treated by radical hysterectomy with pelvic lymphadenectomy between 1983 and 1994.

Main outcome measures : Significance of variables in relation to recurrence.

Results : Significant differences in risk of recurrence were observed among the patients with and without lymph node metastasis (50 % vs 15.2 %, P = 0.03), and the tumors with increased histologic grade (grade 1 = 12.3 % vs grade 2 + 3 = 41.2 %, P = 0.01).

Conclusion : Nodal metastasis and histologic grade were related to recurrence in surgically treated cervical adenocarcinoma.

Published in : Thai Journal of Obstetrics and Gynaecology 1997; 9 : 133-137.

WELL DIFFERENTIATED VILLOGLANDULAR ADENOCARCINOMA OF THE UTERINE CERVIX : A FIRST REPORT OF LYMPH NODE METASTASIS IN TWO OF FOURTEEN CASES.

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Faculty of Medicine, Chiang Mai University

Background : Well differentiated villoglandular adenocarcinoma is a new subtype of cervical adenocarcinoma. Based on the literature review, neither recurrence nor extrauterine spread has been reported.
Design : The clinicopathological features of well-differentiated villoglandular adenocarcinoma treated by surgery in our institution between 1983-1994 were retrospectively reviewed.
Results : Fourteen cases were included in this study. The patients' age ranged from 22 to 53 (mean, 39.5). Thirteen patients were clinically stage IB and the other was IIA. Two patients had metastatic carcinoma in the pelvic lymph nodes at the time of operation. The tumor invaded deeply to outer third of cervical wall in one case and to middle third with involvement of the entire exocervical mucosa (4 cm. in size) in the other.
Conclusion : Pelvic nodal metastasis could be occurred in the well differentiated villoglandular adenocarcinoma. The depth of invasion is an important factor associated with increased risk of nodal metastasis.

Presented at : Fifth Congress of Asia Pacific Association of Societies of Pathologists & Ninth National Congress of Pathology, December 5-7, 1997 Asia Hotel, Bangkok, Thailand.

THE CLINICAL BENEFIT OF A REPEATED PAPANICOLAOU SMEAR AT THE TIME OF COLPOSCOPY.

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Chailert Phongnarisorn, Prapaporn Suprasert

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Faculty of Medicine, Chiang Mai University

Abstract : The clinical benefit of a repeated Papanicolaou smear (Pap smear) at the time of colposcopy was determined in 71 patients who had undergone colposcopic examination at the Chiang Mai University Hospital between January1, 1997 and March 31, 1998. The correlation between the initial Pap smear, the repeated Pap smear and the colposcopically directed biopsy (CDB) results were analyzed. Only 32 patients (45 %) showed an exact correlation between the initial Pap smear and the repeated Pap smear. The sensitivity of the repeated smear was lower than that of the initial smears, which were 76 % and 96 % respectively. The false-negative rate of repeated smear was 23 %. The exact correlation between the first Pap smear and biopsy results did not differ from that of the repeated smear (53.5 % and 50.7 % respectively). Only 2 patients (2.8 %) needed conization when performing a repeated smear. No invasive cancer was missed from skipping the repeated smear. In conclusion, this study demonstrates that repeating of a Pap smear at the time of colposcopy provides a limited clinical benefit. Such procedure can be omitted to save the national budget and reduce workload.

Published in : Chiang Mai Medical Bulletin 1998; 37 (1-2) : 1-5

MALIGNANT LIPID CELL TUMOR OF THE OVARY.

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Lipid (steroid) cell tumors of the ovary are one of the rarest forms of ovarian neoplasm, account for less than 0.1 % of all ovarian neoplasms. A 66-year-old Thai woman with pelvic mass was diagnosed as malignant lipid (steroid) cell tumor of the right ovary. The right ovarian mass weighed 850 gm and measured 15x15x10 cm. the tumor composed of two cell types arranged in clusters and groups as organoid pattern intermingled with delicated fibrovascular stroma. One cell type was polygonal, contained eosinophilic and slightly granular cytoplasm. The other cell type was larger, with abundant, vacuolated, often spongy cytoplasm. Foci of necrosis and hemorrhage were observed. The histopathological evidence of metastasis to omentum, wall of sigmoid colon and mesentery of caecum was compatible with malignant lipid cell tumor of the ovary. The patient received 6 courses of chemotherapy and loss to follow-up 7 months after the main operation.

Published in : Thai Journal of Obstetrics and Gynaecology 1998; 10 : 239-242.

OVARIAN MUCINOUS INTESTINAL TUMORS OF LOW MALIGNANT POTENTIAL WITH MICROINVASION: A CLINICOPATHOLOGIC STUDY OF 12 CASES.

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** Department of Obstetrics and Gynecology, Faculty of Medicine Chiang Mai University.

Objective : To study the clinicopathologic features of the mucinous intestinal tumors of low malignant potential (MILMP) with microinvasion of the ovary.
Design : A descriptive study
Sample : Ovarian MILMP tumors with microinvasion treated at Maharaj Nakorn Chiang Mai Hospital between January 1992 to December 1997 were reviewed.
Result : During six years, there were twelve MILML tumors with microinvasion treated in our hospital. The patients' age ranged from 21-72 years (mean, 44.3) Five of twelve were postmenopausal at the time of surgery. Only two of eleven which had available data were nulliparous. Ten of tumors were classified as stage IA and the other two were IC. The size of tumor ranged from 12-30 cm.(mean 17.1). Seven tumors were right sided, five were on the left. All of them were multilocular cysts with areas of fine honeycombing on the cut surface. Small foci of stromal invasion measured up to 0.3 cm. were identified microscopically. Three of them received adjuvant chemotherapy (two were stage IC and one was IA). Follow up information showed that seven patients were alive without evidence of disease at 7-60 months (mean 19.7), four were lost without evidence of disease at 1-41 months (mean 13.3) and one was lost after surgery.
Conclusion : MILMP tumors with microinvasion are not rare tumors and although the number is small in this study, the prognosis seems to be similar to that of MILMP.

Presented at : XIII th Annual Scientific Meeting of The Royal Thai College of Obstetricians and Gynaecologists, October 20-22, 1998, Sofitel Raja Hotel, Khon Kaen, Thailand.

MOLAR PREGNANCY IN HILLTRIBE THAI PEOPLE : PROBLEMS AND MANAGEMENT

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Faculty of Medicine, Chiang Mai University

Between January 1984 and December 1997, 20 cases of molar pregnancy in hill-tribe Thai people were treated at Department of Obstetrics and Gynecology, Maharaj Nakorn Chiang Mai Hospital. Eight cases (40 %) were below 20 years of age. The mean age was 24.8 years (range 14-50). Eleven cases (55 %) came from Mae Hong Son Province. Twelve cases (60 %) were multiparity. Nineteen cases (95 %) were classified as high risk for malignant sequelae or persistent trophoblastic disease (PTD). Among 6 cases undergone suction curettage without chemoprophylaxis, 2 developed PTD which could be treated until remission. The remaining 4 cases were lost to follow-up after pregnancy termination. Eleven patients were treated by suction curettage with chemoprophylaxis, resulted in remission in 5 cases, in which 2 were cured by continuation of chemotherapy for 3 courses after pregnancy termination. Two patients developing PTD, attained remission following chemotherapy. The remaining 4 patients were lost to follow-up. Three patients underwent abdominal hysterectomy accompanied with chemoprophylaxis. One could achieve remission. The remaining 2 patients were lost to follow-up. Overall, the loss of follow-up rate was 50 percent. Health education policy, especially contraception and antenatal care should be launched to hill-tribe people. Chemoprophylaxis may be considered in hill-tribe patients because of high rate of follow-up loss.

Published in : Bulletin of the Department of Medical Services 1999; 24 : 44-49.

A 14-YEAR RETROSPECTIVE STUDY OF MOLAR PREGNANCY IN MAHARAJ NAKORN CHIANG MAI HOSPITAL : HIGH INCIDENCE OF PERSISTENT DISEASE

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Objective : To determine the clinical characteristics and outcomes of patients with histologically diagnosed hydatidiform mole.
Design : Retrospective study. **Setting** : Department of Obstetrics and Gynecology, Maharaj Nakorn Chiang Mai Hospital.
Subjects : One hundred and sixty nine patients with histologically diagnosed hydatidiform mole between January 1984 to December 1997
Main outcome measures : Clinical characteristics, remission, and the incidence of persistent gestational trophoblastic disease (PGTD).
Results : The incidence is 1.96:1,000 deliveries. The mean maternal age was 27.8 years (range 14-45). Forty two percent of patients were primigravida. The mean gestational age at diagnosis was 14.4 weeks (range 6-28). The average uterine size at surgical evacuation was 17.4 weeks (range 8-32). The most common presenting symptoms was vaginal bleeding. About 90 % of patients were classified as high risk for PGTD. The incidence of PGTD was 53.3 % in patients undergoing suction curettage without chemoprophylaxis. When separately analyzed, PGTD occurred in 59 % and 16.7 % of high-risk and low-risk patients, respectively. The incidence of PGTD remained high at 43.8 % despite receiving chemoprophylaxis during suction evacuation. PGTD also occurred in 12.5 % of patients undergoing hysterectomy with chemoprophylaxis. Loss of follow-up rate was relatively high at 28 %.
Conclusion : Due to high incidence of PGTD, regular follow-up with sensitive hCG assay must be emphasized to all patients following termination of molar pregnancy.

Presented at : XIII th Annual Scientific Meeting of The Royal Thai College of Obstetricians and Gynaecologists, October 20-22, 1998, Sofitel Raja Hotel, Khon Kaen, Thailand and IVth International Conference of Nepal Society of Obstetricians & Gynaecologists, February 21-22, 1999, Hotel Himalaya, Kathmandu, Nepal.
Published in: Thai Journal of Obstetrics and Gynaecology 1999; 11:17-22.

MANAGEMENT OF PATIENTS WITH POSITIVE MARGINS AFTER CERVICAL CONIZATION : A REVIEW.

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Management of patients with positive cone margins is based on the pathology of cone margins, the results of endocervical curettage (ECC) and surgical methods of cervical removal. In case of microinvasive carcinoma (MIC), the risk of residual-invasive cancer is unacceptably high if either cone margins or ECC is positive. A repeated conization or modified radical hysterectomy is recommended depending on the patient's desire of future fertility. For cervical intraepithelial neoplasia (CIN), the risk of residual tumor appears to depend on the method of cervical tissue removal. If positive margins are noted after loop electrosurgical excision procedure (LEEP), further excisional conization is advised to exclude residual disease. Nevertheless, in case of positive margins following cold knife conization (CKC), close follow-up with cervical cytology and colposcopy may be appropriate in patients whose fertility should be retained. For adenocarcinoma insitu (AIS), CKC providing larger cervical specimens is preferred for accurate histological diagnosis. Although the risk of residual disease and recurrence after LEEP is significantly greater than that after CKC, hysterectomy with long term follow-up is recommended in case of positive AIS at surgical margins.

Published in :Thai Journal of Obstetrics and Gynaecology 1999;11 : 53-60.

EXPERIENCE WITH RADICAL HYSTERECTOMY AND PELVIC LYMPHADE-NECTOMY FOR CERVICAL CANCER WITH NO PERITONIZATION AND NO RETROPERITONEAL DRAINAGE.

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Division of Gynecologic Oncology, Department of OB&GYN, Faculty of Medicine, Chiang Mai University

Objective : To determine postoperative morbidity and lymphocyst formation in cervical cancer patients undergoing radical hysterectomy and pelvic lymphadenectomy (RHPL) without reperitonization and retroperitoneal drainage.
Design : Prospective study. **Setting** : Division of Gynecologic Oncology, Department of Obstetrics & Gynecology, Faculty of Medicine, Chiang Mai University.
Subjects : Fifty five consecutive patients with stage IA2-IIA cervical cancer underwent RHPL between March, 1997 and November 1998. No patient received preoperative radiation therapy or chemotherapy. A Piver-Rutledge type II-III extended hysterectomy was performed with nonclosure of the pelvic peritoneum. No closed-suction retroperitoneal drainage was utilized after pelvic lymphadenectomy. Sonographic examination was performed at 2, 4 and 6 weeks postoperatively.
Results : The patients were in stage IA2 (1), IB1 (51), and IIA (3) of cervical cancer. The operating time ranged from 2.3 hrs. to 5.2 hrs. (mean = 3.7 hrs). Injury to the bladder occurred in 3 patients. One patient had ureteral injury, another one had rectal injury. The blood transfusion rate was 52.7 %. Number of lymph nodes removed ranged from 10-42 (mean = 26). Postoperative stay ranged from 3-8 days with a mean of 4.3 days. No patient developed bowel obstruction. One patient had febrile morbidity caused by urinary tract infection. Early asymptomatic lymphocysts detected on ultrasound occurred in 2 patients at 6 weeks postoperatively and resolved spontaneously 6 weeks and 8 weeks later. However, one patient complaining of right leg edema at a 6-month follow-up visit was found by CT scan to have a lymphocyst. The lymphocyst and symptom disappeared after fine needle aspiration under ultrasound guidance.
Conclusion : Routine reperitonization and retroperitoneal drainage following radical hysterectomy and pelvic lymphadenectomy may be safely abandoned.

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SIGNIFICANCE OF SURGICAL MARGIN STATUS IN CERVICAL SPECIMENS OBTAINED FROM LOOP ELECTROSURGICAL EXCISION PROCEDURE (LEEP).

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Objective : To determine the significance of surgical margin status in cervical specimens obtained from loop electrosurgical excision procedure (LEEP) in patients with cervical neoplasia undergoing such procedure followed by hysterectomy.
Design : Retrospective study.
Setting : Chiang Mai University Hospital.
Method : Between August 1, 1995 and September 30, 1997, ninety-three patients with abnormal Papanicolaou smear underwent colposcopy followed by LEEP. Subsequent hysterectomy was performed within 6 months of the procedure. Medical records were reviewed for patient profiles, the indication of LEEP, pathology of loop specimens including the status of surgical margins and residual disease in subsequent hysterectomy specimens.
Results : Of the 93 patients, 71 were eligible for histologic evaluation of the ectocervical and endocervical margins. The incidence of residual tumor in hysterectomy specimens was highest in patients with positive endocervical margins only (12 of 29 patients or 41.4 %). Of 10 cases with both positive both endocervical and ectocervical margins, 3 (30 %) had residual disease. In 22 cases with both negative endocervical and ectocervical margins, residual tumors were still found in 4 patients (18.2 %). In contrast, 2 out of 10 patients (20 %) with positive ectocervical margins only had residual disease. However, three cases of invasive cancer were missed from such procedure. The first was initially diagnosed as high-grade squamous intraepithelial lesion (HGSIL) with involved endocervical margin. This patient was mistakenly treated with simple hysterectomy. The remaining two patients also had HGSIL but squamo-columnar junction could not be identified due to shallow loop specimens. Both patients underwent radical hysterectomy and inappropriate simple hysterectomy, respectively.
Conclusion : The presence of disease at surgical margins of loop specimens significantly correlates with the residual disease in subsequent hysterectomy specimens. The status of the internal or endocervical margins appears to be more predictive of residual disease on subsequent histologic evaluation when compared with that of the external or ectocervical margins.

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METASTATIC HEPATOCELLULAR CARCINOMA OF THE OVARY.

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Hepatocellular carcinoma is an uncommon tumor to metastasize to the ovary and may cause a diagnostic problem. To our knowledge, there were six cases of metastatic hepatocellular carcinoma to the ovary reported in the English literature. We, herein, present an additional case in which ovarian lesion was the initial presentation.

A 56-year-old postmenopausal woman presented with pelvic mass for 1 month. Physical examination disclosed mild anemia and lower abdominal mass. The liver was not palpable. Pelvic examination revealed a 15-cm left adnexal mass. An exploratory laparotomy disclosed a left ovarian tumor with 1000 ml. ascitic fluid and carcinomatosis peritonei involving the surface of omentum, liver and diaphragm. The tumor extended toward the posterior surface of the uterus and sigmoid colon. the ovary was normal size but contained a few small surface nodules, measuring 3 to 4 mm across. TAH & BSO and sigmoid colostomy were performed.

On microscopic exam, the tumor showed a predominant solid and trabecular patterns with endothelial-bounded vascular spaces. Psoudoglandular arrangement was also observed. The neoplastic cells were polygonal-shaped and contained moderate to abundant pale eosinophilic, granular to clear cytoplasm and vesicular nuclei with prominent nucleoli. Evidently observed were intercellular canaliculi, many of which contain bile material that was Hall's stain positive. Mucicarmine stain was uniformly negative. Strong reactivity of the tumor cells for alpha-fetoprotein (AFP) with absence of immunoreactivity for carcinoembryonic antigen (CEA) was noted. Postoperative CT scan revealed multiple confluent masses occupying the left hepatic lobe with several discrete nodules in the right lobe and portal venous thrombosis, consistent with hepatocellular carcinoma. Her serum AFP was 534 ng/ml. The serum was positive for HBsAg, HBsAg, and anti-HBcAb. The patient received supportive treatment with oral megestrol acetate. She died 4 months postoperatively.

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CLEAR CELL CARCINOMA OF THE OVARY

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Objective : To evaluate the clinical characteristics and results of treatment of ovarian clear cell carcinoma.
Method : The detailed data on 59 patients with clear cell carcinoma of the ovary treated at Maharaj Nakorn Chiang Mai Hospital (between 1984-1996) and Vajira Hospital (between 1992-1998) were retrospectively reviewed.
Results : The median age was 46 years. Fifty nine percent were nulliparous. The incidence by surgical stage were 33 (55.9 %) stage l (la 14, Ic 19). 4 (6.8 %) stage II (IIa 1, IIb 1, IIc 2) and 22 (37.3 %) stage III (IIIa 1, IIIb 4, IIIc 17). The tumor size ranged from 6 to 30 cm. with the median of 12 cm. Bilateral ovarian involvement was found in 3.1 % for stage I and 17.2 % in all stage. Treatment consisted of cytoreductive surgery (with optimal surgery in 81.5 %) followed by chemotherapy in most cases. Considering 37 cases of stage I and II; 3 had tumor progression during treatment, 7 were lost during treatment and 2 of these had tumor progression, 6 had tumor recurrence after complete treatment while 21 were alive without disease (median follow up time 39 months). For 22 cases of stage III; 7 were lost during treatment and all but 1 were known to have tumor progression. Another 13 patients had tumor progression during treatment while only 2 patients (both of stage IIIb) were alive without disease 5 and 10 years after treatment. The 5-year survival was 91.7 % for stage I, 50 % for stage II and 14.4 % for stage III.
Conclusion : Clear cell carcinoma of the ovary was more common presented in early stage and patients in early stage had good prognosis with appropriate treatment while patients in advanced stage had poor prognosis despite aggressive chemotherapy.

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RADICAL PARAMETRECTOMY, UPPER VAGINECTOMY AND PELVIC LYMPHADENECTOMY OF INVASIVE CERVICAL CANCER FOLLOWING SIMPLE HYSTERECTOMY.

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The standard treatment of early invasive cervical cancer included either radical hysterectomy or radiation therapy. Both treatment modalities have been accepted as equally effective in terms of local control and survival. Although radical hysterectomy and pelvic lymphadenectomy (RHPL) appears to be sufficient for early-stage cervical cancer, some condition arises when the invasive lesion is found incidentally in the specimen obtained from simple hysterectomy. This condition, called cut-through hysterectomy, indicates the need for further therapy either radiation or radical re-operation to eliminate the risk of residual disease in the vaginal cuff, paravaginal tissues, paracervical tissues, and pelvic lymph nodes.

Radical re-operation is an interesting option since ovarian function and vaginal pliability can be preserved. This report presents our experience with radical parametrectomy, upper vaginectomy, and pelvic lymphadenectomy without serious perioperative morbidity in 3 patients undergoing inadvertent simple hysterectomy of invasive cervical cancer. Although the operation seems to be technically more difficult than RHPL, it is an attractive and effective option and can be safely performed in selected patients especially young women with no clinical evidence of residual tumor.

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REASONS FOR IMPROPER SIMPLE HYSTERECTOMY IN PATIENTS WITH INVASIVE CERVICAL CANCER.

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Objective : To determine the reasons for improper simple hysterectomy in the presence of invasive cervical cancer.
Methods : The medical records of 70 patients who had undergone simple hysterectomy in the presence of invasive cervical cancer and were referred to Chiang Mai University Hospital between January 1991 and December 1998 were reviewed.
Results : Approximately half of the patients presented with abnormal vaginal bleeding. Failure to perform a Papanicolaou smear before the operation accounted for 35.4 %. Normal pelvic examination in which no gross invasive tumor was observed accounted for 59 %. The most common indication for inappropriate operation was cervical dysplasia. The reasons for inappropriate simple hysterectomy included lack of preoperative cervical cytology (22.8 %), incomplete evaluation of cervical dysplasia or microinvasion on biopsy (21.4 5), false-negative cervical cytology (18.6 %), failure to perform an endocervical curettage following conization (8.6 %), emergency hysterectomy (8.6 %), failure to perform indicated conization (5.6 %), errors in colposcopic examination (4.3 %), incomplete evaluation of an abnormal cervical cytology (1.4 %), failure to perform endocervical currettage following loop conization (1.4 %), failure to review slide (1.4 %), failure to check the pathology report (1.4 %), failure to biopsy a gross cervical lesion, and skipped lesion in upper part of the endocervix (91.4 %). One case of invasive disease was missed for unknown reason.
Conclusion : Most cases of inappropriate hysterectomy resulted from deviation from guideline for cervical cancer detection. Preoperative Papanicolaou smear and strict adherence to the well-established diagnostic protocol for patients with an abnormal smear are advised to prevent such occurrence.

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HIGH DOSE RATE AFTERLOADING BRACHYTHERAPY IN CARCINOMA OF THE CERVIX. AN EXPERIENCE OF 1992 PATIENTS.

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Purpose : To report the result of radiation therapy in carcinoma of the cervix treated by external irradiation and high dose rate intracavitary brachytherapy.
Methods and Materials : This is a retrospective analysis of 2063 patients with histologically proven carcinoma of the cervix treated by external irradiation and high dose rate intracavitary brachytherapy between March 1985 - December 1991. The Kaplan-Meier method was used for survival and disease free survival analysis. Late complications in the bowel and bladder were calculated actuarially.
Results : There were seventy-one patients who did not complete the course of irradiation, so only 1992 patients were retrospectively analyzed for survival. There were 2 patients (0.1 %) in stage IA, 211 (10.2 %) stage IB, 225 (10.9 %) stage IIA, 902 (43.7 %) stage IIB, 14 (0.7 %) stage IIIA, 675 (32.7 %) stage IIIB, 16 (0.8 %) stage IVA, and 16 (0.8 %) in stage IVB. The median follow up time was 96 months. The actuarial 5-year disease free survival rate was 79.5 %,70.0 %, 59.4 %, 46.1 %, 32.3 %, 7.8 % and 23.1 % for stage IB, IIA, IIB, IIIA, IIIB, IVA and IVB respectively. The actuarial 5-year disease free survival rate for stage IB_1 and IB_2 squamous cell carcinoma was 88.7 % and 67.0 % respectively. The actuarial 5-year overall survival rate was 86.3 %, 81.1 %, 73.0 %, 50.3 %, 47.8 %, 7.8 % and 30.8 % for stage IB, IIA, IIB, IIIA, IIIB, IVA and IVB respectively. Pattern of failure revealed 20.8 % local recurrence, 18.7 % distant recurrence and 4 % in both. The late complication rate grade 3 and 4 (RTOG) for bowel and bladder combined was 7.0 % with 1.9 % grade 4.
Conclusions : The result in high dose rate brachytherapy used in this series, produced pelvic control and survival rates comparable to other LDR series.

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UPDATE RESULT ON GEMCITABINE AND CISPLATIN IN PATIENTS WITH METASTATIC CERVICAL CANCER

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Purpose : To determine the therapeutic efficacy of cisplatin plus gemcitabine in the treatment of patients with metastatic cervical cancer.
Methods and Materials : A total of 51 patients were enrolled in this study. The median age was 46 years (34-67). Thirty-five patients were treated to the pelvis by radical radiotherapy, one patient was treated by surgery and one by surgery and postoperative RT previously. There were 14 patients with stage IVB cervical cancer who were previously untreated. The sites of metastases were 10 in the lungs, 5 in the supraclavicular nodes, 9 in the paraaortic nodes, 4 in the liver, 3 in the inguinal nodes, 5 in both supraclavicular nodes and lungs, 9 in both supraclavicular and paraaortic nodes, 1 in both supraclavicular and inguinal nodes, 1 in both lung and inguinal nodes, 2 in both lung and paraaortic nodes and 2 in both liver and lungs. Fine needle biopsies were done in all metastatic sites except for multiple lung, and multiple liver metastases. Cisplatin was administered as IV infusion on day 1 (70 mg/m^2). Gemcitabine was administered as an IV infusion over 30 minutes on day 1 and 8 (1250 mg/m^2) every 21 day cycle.
Results : Thirty-seven patients were available for evaluation : 3/37 (8.1%) achieved a complete response, 26/37(70.3%) achieved a partial response, 4/37 (10.8%) had stable disease, and 4 (10.8%) had progressive disease. Myelosuppression was the major toxicity. Grade 3 or 4 anemia and granulocytopenia occurred at a frequency of 25.5% and 29.4%. high grade thrombocytopenia was found in 3.8%. there were 3 (5.8%) patients who developed grade 4 neutropenia and fever. No other major side effects were found other than alopecia and usual gastrointestinal toxicities such as anorexia, nausea and vomitting.
Conclusion : In this study of patients with metastatic cervical cancer, the combination of cisplatin and gemcitabine induced a high response rate. These results require confirmation in larger number of patients.

Presented at : Lilly Oncology Conference, Update in Cervical Cancer Management, November 17-19, 2000, Kunming, People's Republic of China.

A PROSPECTIVE RANDOMIZED STUDY COMPARING RETROPERITONEAL DRAINAGE WITH NO DRAINAGE AND NO PERITONIZATION FOLLOWING RADICAL HYSTERECTOMY AND PELVIC LYMPHADENECTOMY (RHPL) FOR INVASIVE CERVICAL CANCER (ICC).

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Objective : To evaluate the postoperative morbidity and lymphocyst formation in ICC patients undergoing RHPL with no drainage and no peritonization compared with retroperitoneal drainage and peritonization.
Methods : Between July 1999 and May 2000, 100 patients with stage IA-IIA cervical cancer undergoing RHPL were randomized to receive either no drainage and no peritonization (Group A=48 cases) or retroperitoneal drainage and peritonization (Group B = 52 cases). Perioperative data and morbidity were recorded. Transabdominal and transvaginal sonography were performed at 1,2, and 3 months postoperatively to detect lymphocyst formation.
Results : **Both groups were similar regarding age, size and gross appearance of tumor, tumor histology, and stage. There was no difference between groups in respect of operative time, need for blood transfusion, intraoperative complications, number of nodes removed, nodal metastases, and need for adjuvant radiation and chemotherapy. Asymptomatic lymphocysts were sonographically detected at 1,2 and 3 months postoperatively in 3 (6.8%), 2(4.6%), and 3 (7.7%) of 44,43, and 39 patients respectively in Group A, whereas none was found in Group B (P=0.2). no significant difference was found in term of postoperative morbidity in the two groups.**

Conclusion : Routine retroperitoneal drainage and peritonization after radical hysterectomy and pelvic lymphadenectomy for invasive cervical cancer can be safely omitted.

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ATYPICAL SQUAMOUS CELLS OF UNDETERMINED SIGNIFICANCE : CHIANG MAI EXPERIENCE.

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Cervicovaginal smears have been widely accepted as the most effective screening method for carcinoma of cervix. A new reporting system of cervicovaginal smear, so called "The Bethesda System" was established since 1988. The term "Atypical squamous cells of undetermined significance or ASCUS" was introduced in this reporting system for those squamous cells that were abnormal but did not fulfil criteria for diagnosis of dysplasia or squamous intraepithelial lesion.

The Bethesda System had been used in our institution since mid 1995. Following some adjustment, we would like to evaluate whether our performance was similar to those published in the literature and also to appraise outcome of ASCUS after follow-up

This brief communication includes our preliminary data concerning ASCUS in our experience from January to October 2000. Out of 12,879 cases screened during this period, 146 cases (1.13%) of ASCUS were diagnosed while 986 cases (7.66%) and 601 cases (4.67%) of high grade squamous intraepithelial lesion (HSIL) and low grade squamous intraepithelial lesion (LSIL) were encountered, respectively. Among 146 ASCUS cases, 79 (54.12%) of HSIL, 8 cases (10.13%) of LSIL and 6 cases (7.59%) of frank invasive squamous cell carcinoma. A single case had inadequate tissue for evaluation.

We conclude that our performances are similar to those reported in the literature. The ASCUS : SIL ratio in only 0.08 that falls in an acceptable range (less than 3). Approximately one-thirds (31.0% of our ASCUS cases have precancerous or cancerous histologic follow-up. The results resemble some reported series in the western country.

Presented at : The Seventh Thai-Japanese Workshop in Diagnosis Cytopathology and The First Annual Congress of Thai Society of Cytology, January 10-12, 2001, Phuket Merlin Hotel, Phuket, Thailand.

MALIGNANT OVARIAN NEOPLASMS : HISTOLOGIC SUBTYPES OF 314 CASES TREATED AT THE UNIVERSITY HOSPITAL OF NORTHERN THAILAND.

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To investigate the relative frequency of each histologic type of malignant ovarian neoplasms at Maharaj Nakorn Chiang Mai Hospital. All cases of primary ovarian malignant tumors treated in our hospital during 6-year-period (1992-1997) were evaluated for the histologic types. Of 314 malignant tumors, 248 (79.0%) were of epithelial-stromal group, 14 (4.4%) were sex cord-stromal tumors, and 50 (16.0%) were germ cell tumors. Among 138 invasive carcinomas, the major types included endometrioid (29.0%), serous (27.5%), clear cell (19.6%), and mucinous (11.6%) adenocarcinoma. Of 110 LMP tumors, 75.45 were mucinous; 14.5%, serous; 7.3%, endometrioid; and 2.7%, mixed LMP tumors. Microinvasion was also observed in 11.8% of LMP tumors. The ratios of serous to mucinous type were 2.4:1 for invasive carcinoma and 0.2:1 for LMP tumors. Of malignant germ cell tumors, dysgerminoma, yolk sac tumor, and immature teratoma were the major types with similar relative frequency. Compared to the data in the literature, less relative frequency of serous adenocarcinoma, and higher relative frequency of mucinous LMP tumors and malignant germ cell tumors was observed in our hospital than in most Western countries.

Presented at : XXIII International congress of the international academy of pathology and 14th world congress of academic and environmental pathology 15-20 October, 2000 Nagoya, Japan.

SECOND LOOK OPERATION FOR OVARIAN CANCER

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Objective : To determine the clinical outcome of ovarian cancer patients who underwent second look operation.
Methods : Medical records and follow up information of 130 ovarian cancer patients who underwent second look operation between 1984-1996 at Maharaj Nakorn Chiang Mai Hospital and between 1993-2000 at Vajira Hospital were retrospectively reviewed.
Results : The median age of the patients was 45.5 years. Seventy-six percent had common epithelial ovarian cancer, while 21.5% and 2.3% had germ cell and sex cord stromal tumor. The stage distribution were as followed: stage I 46.2%, stage II 11.5%, stage III 38.5% and stage IV 3.8%. Second look operation was reported as negative in 100 cases (76.9%). With the median follow up of 7.2 years, 19.0% of these patients had tumor recurrence. The median time from negative second look operation to recurrence was 1 year (1 month to 5.3 years). Of these recurrent cases, only 5.3% were free of disease at last visit of ≥ 2 years after recurrence. Regarding those 30 cases (23.1%) who had positive second look operation; 23.3% had only cytologic and/or microscopic positive and 16.7% were free of disease at last visit for more than 5 years after second look operations.
Conclusion : The benefit of second look operation is controversial since recurrence can occur in those with negative second look; however, some patients with positive second look will be treated earlier and had long survival.

Presented at : 16th Annual Scientific Meeting of The Royal Thai College of OB&GYN, The Royal Golden Jubilee Building, Bangkok, Thailand. October 16-19, 2001.

A PROSPECTIVE RANDOMIZED STUDY COMPARING VOIDING TIME BETWEEN INTERMITTENT SELF-CATHETERIZATION AND SUPRAPUBIC CYSTOSTOMY FOLLOWING RADICAL HYSTERECTOMY AND PELVIC LYMPHADENECTOMY FOR CERVICAL CANCER

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Objective : To compare the voiding time between intermittent self-catheterization (ISC) and suprapubic cystostomy (SPC) in cervical cancer patients undergoing radical hysterectomy and pelvic lymphadenectomy
Design : Prospective randomized study
Setting : Division of Gynecologic Oncology, Department Obstetrics & Gynecology, Faculty of Medicine, Chiang Mai University.
Methods : Between September 1998 and June 1999, 71 patients with stage IB-IIA cervical cancer undergoing RHPL were prospective randomized to receive either ISC (38 cases) or SPC (33 cases) for managing post operative bladder dysfunction. The intermittent self-catheterization was initiated on 7th post operative day every 4 hours after voiding in the ISC group, whereas in the SPC group, the catheter was clamped on 7th post operative day. The duration for clamping in the SPC group was 4 hours and was released after self voiding to check the residual urine. Both ISC and SPC were discontinued when post voiding residual urine was less than 75 ml for 2 consecutive voids. Patients in the SPC group was switched to perform ISC if they could not void normally at 30 days postoperatively. The voiding time, the frequency of urinary tract infection, perioperative data and morbidity were recorded.
Results : Both groups were similar regarding age, BMI, tumor histology, stage, size and gross appearance of the tumors. There was no difference between groups in respect of operative time, need for blood transfusion, peri-operative morbidity, need for adjuvant chemoradiation and the frequency of urinary tract infection. The mean operative time of the SPC group was significantly longer than the ISC group (3.8 vs 3.5 hr, P= 0.05). Twenty-five (65.8%) patients in the ISC group and 23 (69.7%) in the SPC group had voiding time less than 30 days. Mean voiding time in the ISC group was significantly less than that in the SPC group (13.1 days vs 17.3 days respectively, P = 0.02).
Conclusion : Patients performing ISC after RHPL for invasive cervical cancer can resume bladder function earlier than those undergoing SPC without significant difference in the frequency of urinary tract infection and perioperative morbidity.

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HUMAN PAPILLOMA VIRUS DETECTION AND EXPRESSION OF HPV 16 AND 18 E6/E7 mRNA IN CERVICAL CANCER CELLS

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Several types of human papilloma virus (HPV) have been implicated in the development of neoplastic lesions of the uterine cervix. HPV type 16 and 18 are the most frequently found especially in cervical cancer cells and are designated as a high-risk types. The viral transforming function are located in E6/E7 open reading frames. The expression of those genes are important for malignant transformation. In this study, we used the polymerase chain reaction based restricition fragment length polymorphism (PCR-RFLP) for detection and typing of the HPV in preinvasive and invasive cervical carcinomas. The HPV 16 and 18 containing cervical cancer cells were further analysed for the patterns of E6/E7 transcription. The relative amount between E6/E7 mRNA subsets was determined by using ABI 310 Genetic Analyzer (Perkin Elmer, U.S.A). In preinvasive stage, CIN 1, CIN2, CIN3 and CIS, HPV DNA was detected in 9 out of 50 samples (18%). In this group, HPV 16, 18, 52 and 59 were detected in 2, 2, 4 and 1 sample (s) respectively. For the invasive stage, 32 out of 36 samples (88.9%) were containing HPV DNA. HPV 16 was predominately detected in 15 samples (46.9%) while HPV 18, 35, 52, 6 and 11 were detected in 4, 7, 2, 2 and 1 sample (s) respectively. At least two subsets of mRNA, E6*I and E6*II were detected in all HPV 16/18 containing cervical cancer cells. However, the E6*I m RNA that function in producing E7 protein was predominately expressed. The ratio between E6*I and E6*II was vary from 1 to 2. This study suggested at least HPV especially the high-risk type 16 and 18 together with their E6/E7 oncogene expression were important in development and maintaining malignant phenotype of cervical cancer.

Presented at : 5th Asia-Pacific Congress of Medical Virology at Denpasar-Bali, Indonesia, June 26-28, 2000

RANDOMIZED TRIAL OF PACLITAXEL PLUS PARAPLATIN VERSUS CYCLOPHOSPHAMIDE PLUS PARAPLATIN IN THE TREATMENT OF ADVANCED EPITHELIAL OVARIAN CANCER

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Objective : To compare the efficacy and toxicity of paclitaxel plus paraplatin with paraplatin plus cyclophosphamide in the treatment of the advanced epithelial ovarian cancer.
Design : Randomized trial.
Setting : Multicenters.
Subjects : The valuable 95 patients of the stage III-IV epithelial ovarian cancer from 3 centers were recruited between December 1995-April 1998.
Main outcome measure : Response rate, drug toxicity, recurrent rate and survival
Results : The paclitaxel 150 mg./m^2 plus paraplatin AUC 6 and cyclophosphamide 700 mg./m^2 plus paraplatin AUC 6 achieved similar results in clinical complete response 63.8% and 66.7%, pathological complete response 76.0% and 75.0%, recurrence after pathological complete response 36.8% and 55.5% respectively (P>0.05). The median disease free survival in the pathological complete response group of paclitaxel plus paraplatin cannot be estimated, whereas 11.0 months of paraplatin plus cyclophosphamide. The mean disease free survival of two groups fell in 39.8 and 27.1 months (p=0.07). The overall mean survival achieved 36.1 and 35.2 months (p>0.05). The toxicity was similar in both arms, except myalgia/arthralgia and skin rash occurrence in paclitaxel plus paraplatin arm.
Conclusion : Paclitaxel plus paraplatin comparing with cyclophosphamide plus paraplatin in the treatment of advanced epithelial ovarian cancer showed no significant difference in complete response, recurrence, disease free survival and median survival with the acceptable toxicity.
Key word : paclitaxel plus paraplatin, cyclophosphamide plus paraplatin, epithelial ovarian cancer

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COMPARATIVE STUDY OF BULKY STAGE IB AND IIA CERVICAL CANCER PATIENTS TREATED BY RADICAL HYSTERECTOMY WITH AND WITHOUT NEOADJUVANT CHEMOTHERAPY: LONG TERM FOLLOW-UP

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We retrospectively reviewed 190 patients with bulky(>3cm.) stage IB and IIA cervical cancer patients undergoing radical hysterectomy between 1991 and 1994 at Maharaj Nakorn Chiang Mai Hospital to determine whether neoadjuvant chemotherapy (NAC) with MVAC (Methotrexate, Vinblastine, Adriamycin, Cisplatin) can improve survival in bulky stage IB and IIA cervical cancer patients treated by radical hysterectomy. There were 42 patients treated with preoperative NAC (MVAC 1-3 courses) and 148 patients treated by primary surgery (PS). In the NAC group, the overall response rate from MVAC was 88.1% with 31.0% clinical complete response and 7.1% pathological complete response. Pelvic lymph node metastasis was not significantly different between the NAC group (16.7%) and the PS group (18.2%). At a median follow up of 64.5 months, 19.0% in the NAC group and 18.2% in the PS group had tumor recurrence. The 5-year progression free and overall survival were 80.8% and 92.0% respectively for the NAC group which were not significantly different from those of 80.2% and 92.9% respectively in the PS group. In conclusion, although NAC can decrease the tumor size and produce high response rate, it does not improve survival in bulky stage IB and IIA cervical cancer patients.

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ENDOMETRIAL CANCER DIAGNOSED IN PATIENTS UNDERGOING HYSTERECTOMY FOR BENIGN GYNECOLOGIC CONDITIONS

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Objective: To analyze the events preceding incomplete surgical staging procedures in endometrial cancer patients.
Design : Retrospective descriptive study
Setting : Department of Obstetrics & Gynecology, Faculty of Medicine, Chiang Mai University
Subjects : Thirty patients who were unexpectedly found to have endometrial cancer after undergoing hysterectomy for benign conditions and were referred to Chiang Mai University Hospital between January 1993 to December 1999.
Results : Nineteen patients (63%) presented with abnormal uterine bleeding, but only 9 had undergone fractional uterine curettage. The pre-operative pathological reports in 8 patients were endometrial hyperplasia [5], proliferative endometrium [1], chronic endocervicitis [1], and endometrial polyps [1]. The remaining one patient underwent an emergency hysterectomy for severe uterine bleeding following fractional curettage. Eleven patients presented with symptoms other than bleeding, i.e. pelvic mass [6], pelvic pain [3], vaginal discharge [1], and uterine prolapse [1]. Ten of the 30 operations were performed for myoma uteri. The preoperative diagnoses of the remaining 20 patients were abnormal uterine bleeding [5], endometrial hyperplasia [5], ovarian tumor [4], pelvic mass [3], intractable vaginal discharge [1], uterine prolapse [1], and endometrial polyps [1]. Subsequent pathologic evaluation revealed gross appearance of endometrial cancer in the hysterectomy specimens of these patients.
Conclusion : Endometrial cancer might be detected in women undergoing hysterectomy for benign conditions. This situation is best prevented by careful evaluation of patients with abnormal uterine bleeding before definitive surgery. During curettage, the entire endometrium must be removed for accurate pathologic diagnosis. Routine intra-operative opening of the hysterectomy specimen is advised to detect any evidence of endometrial cancer.
Key words : Endometrial cancer, Hysterectomy, Misdiagnosis

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PHASE II TRIAL OF DOCETAXEL AND CARBOPLATIN IN CISPLATIN-RECURRENT ADVANCED OVARIAN CANCER : A PRELIMINARY REPORT

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Background : Patients with recurrent ovarian cancer have a poor prognosis with low response rates and short survival after salvage chemotherapy. In view of encouraging antitumor activity of docetaxel in the preclinical and phase I studies and the synergistic antitumor effect of this agent when combined with carboplatin, we accordingly, conducted a phase II trial of this regimen in patients with cisplatin-recurrent advanced ovarian cancer .
Objective : To evaluate the response rate and toxicity of docetaxel and carboplatinin in patients with cisplatin-recurrent advanced epithelial ovarian cancer
Methods : Sixteen patients with cisplatin – recurrent EOC were recruited between October 1999- October 2000. Eligibility criteria included measurable > 2 cm. in diameter EOC. Age > 18 years old, an ECOG performance status of 0-2, adequate hepatic, renal and bone marrow function, and written informed consent. Docetaxel 75 mg/m2 as 1 hour IV infusion and carboplatin AUC 5 were given on day 1 every 3 weeks for a maximum 6 cycles. All patients were evaluated for response and WHO grading toxicity.
Results: Eleven patients had recurrence more than 6 months (range 8-24 months) after cisplatin. One patient had disease progression after 2 cycles of cisplatin and 4 had recurrence within 6 months after receiving cisplatin. Four patients were withdrawn from the study because of infusion reaction (1 case), refusal of chemotherapy due to febrile neutropenia (2), and loss to follow up after 4 cycles (1 case). Twelve patients were assessable for response. Five patients had progression disease. The overall response rate was 5 of 12 (41.6%) with 1 CR and 4 PR. The median time to progression was 7 months (2-14 months). Of the 65 cycles, grade 3 or 4 leukopenia and neutropenia occurred in 64.6% and 43.8%, respectively. Febrile neutropenia was found in 23% but only 4.6% required GCSF. Other toxicity was minimal.
Conclusion: The combination of docetaxel and carboplatin appear to have moderate efficacy and manageable toxicity in patient with cisplatin-recurrent epithelial ovarian cancer.

Presented at : 6th Annual Meeting of The Thai Gynecologic Oncology Group. Felix River Kwai Resort, Kanchanaburi, Thailand, August 11-13,2001

A PROSPECTIVE PHASE II STUDY OF GEMCITABINE PLUS CISPLATIN AS FIRST-LINE CHEMOTHERAPY IN ADVANCED EPITHELIAL OVARIAN AND FALLOPIAN TUBE CANCER : A PRELIMINARY REPORT.

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Chalong Cheewakriangkrai , Sitthicha Siriaree

Department of OB&GYN, Faculty of Medicine, Chiang Mai University

Purpose : We assessed the therapeutic efficacy and toxicity of gemcitabine plus cisplatin (PG) in the treatment of patients with advanced ovarian and fallopian tube cancer (FIGO stage III-IV) who did not receive any previous chemotherapy, radiotherapy or hormonal therapy .
Patients and methods : Eligibility criteria included chemo-naive patients with advanced epithelial ovarian or fallopian tube cancer, age between 18 and 70 years, an ECOG performance status of 0-2; adequate hepatic, renal and marrow function; and written inform consent. Gemcitabine 1250 mg/m2 followed by cisplatin 75 mg/m2 were given on day 1 and gemcitabine 1250 mg/m2 alone was given on day 8, every 3 weeks for 6 cycles. The patients were evaluated for response (via CT scan and CA125) and toxicity (WHO grading).
Results : Nine patients with ovarian cancer (5 stage IV, 3 stage IIIc and 1 stage IIIb) and one with fallopian tube cancer (stage IIIc) were recruited between May 2000 and August 2001. All received chemotherapy after cytoreductive surgery except for 1 patient with fallopian tube cancer who underwent interval debulking surgery after receiving 3 cycles of chemotherapy. Median age was 54 years with a range from 40 to 66 years. Four cases (40%) completed 6 cycles of chemotherapy. Treatment was prematurely stopped after receiving only 1 cycle due to grade 3 mucositis in 2 cases, progression of disease in 1 case and loss to follow up in the other one. Two patients received only 3 and 2 cycles because of grade IV diarrhea and progression of disease respectively. Gemcitabine were administered over 3 hours IV infusion in 25 cycles and within 30 minutes in 8 cycles. Grade 3 and 4 toxicity of anemia (12%), leucopenia (44%), neutropenia (92%), thrombocytopenia (60%), mucositis (8%) and diarrhea (4%) were found in 25 cycles of 3 hours IV infusion of gemcitabine. While only 1 in 8 cycles of 30 minute IV infusion of gemcitabine had grade 3 neutropenia. Of the 4 patients who completed 6 cycles of chemotherapy, the response rate was 75% (2 had complete response, 1 had a partial response, and 1 had progressive disease). Two patients developed progression of disease after receiving 1 and 2 cycles of chemotherapy, respectively.
Conclusion : Gemcitabine plus cisplatin is effective in advanced epithelial ovarian and fallopian tube cancer. Short duration of gemcitabine infusion is recommended to reduce toxicity. The study is ongoing.

Presented at : Second Lilly Oncology Weekend Program: Oncology Thailand Meet China. Shanghai Cancer Hospital. Shanghai, China, 3 November, 2001

ETOPOSIDE, METHOTREXATE, AND ACTINOMYCIN D (EMA) REGIMEN IN MODERATE & HIGH RISK GESTATIONAL TROPHOBLASTIC TUMORS (GTT)

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Objective: To evaluate the efficacy and safety of etoposide, methotrexate and actinomycin D (EMA) as primary and secondary therapy for moderate and high-risk gestational trophoblastic tumors (GTT).
Methods: In a retrospective study, the medical records of all patients with moderate and high-risk metastatic GTT according to WHO scoring system receiving primary or secondary EMA regimen were reviewed. Hematologic toxicity was graded using WHO criteria.
Results: **From December 1997 through May 2001, Six high-risk and two moderate- risk GTT patients received EMA regimen as the primary treatment. One high-risk GTT patient received EMA regimen as secondary therapy after failure to single agent methrotrexate from the primary hospital. The median age was 27 years (range 15-55). The regimen was given every 14-21 days. Five cases showed multiple metastatic sites. One case had brain metastasis and the other one had ureter involvement. Six patients (66%) had histologically confirmed diagnosis of choriocarcinoma. Two patients was lost to treatment after three cycle of EMA and all showed the regression of B-hCG. Seven cases received completed treatment and all (100%) achieved complete remission. Only 34 of 50 cycle had the data of hematotoxicity. Grade 3 and 4 neutropenia was found in 10 cycles (29.4%) of EMA regimen. One case had grade 4 anemia which may result from severe hematuria after the first cycle of chemotherapy. Neither grade 3 and 4 leukopenia nor thrombocytopenia was found. There was no other severe toxicity.**
Conclusion: EMA regimen was effective in inducing remission of moderate and high risk GTT and the main toxicity is neutropenia which is manageable.

Presented at : 6th National Cancer Conference. Le Royal Meridian Hotel, Bangkok, Thailand. 3-4 December, 2001.

WELL-DIFFERENTIATED VILLOGLANDULAR ADENOCARCINOMA OF THE UTERINE CERVIX : A REPORT OF 15 CASES INCLUDING TWO WITH LYMPH NODE METASTASIS

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Well-differentiated villoglandular adenocarcinoma is a recently described subtype of cervical adenocarcinoma. The tumor of this type is reported to have distinct clinicopathologic features and excellent prognosis. However, lymph node metastases of this tumor have been described in few reports. Fifteen cases of well-differentiated villoglandular adenocarcinoma treated at Maharaj Nakorn Chiang Mai Hospital were retrospectively reviewed for both clinical and histopathological features. All patients underwent radical hysterectomy with pelvic lymphadenectomy. In the cases with lymph node metastasis, adjuvant radiation therapy was also given. The patients ranged in age from 22 to 53 years (mean, 39.3). Fourteen patients were FIGO stage IB and one was stage IIA. All patients had exophytic friable cervical masses. Tumor size known in 14 cases ranged from 1.5 to 4 cm (mean, 2.3). Eleven tumors (73.3%) were confined to the inner third of the cervical stroma with 9 of these (60%) showing only superficial invasion (depth ≤ 3 mm). The tumors invaded deeply to the middle third in 3 cases (20.0%), and to the outer third in one (6.7%). Lymphatic invasion was observed in 3 cases, two of them had pelvic lymph node metastasis. Both patients had tumors involving deeper than the inner third of the cervical wall. The follow-up duration ranged from 21 to 144 months (mean, 67.5). Four of thirteen cases without nodal metastasis were lost to follow-up 36 to 59 months after surgery. All patients showed no evidence of disease at the last visit. Presence of lymphatic invasion and deep stromal involvement appeared to be the risk factors for lymph node metastasis of well-differentiated villoglandular adenocarcinoma.

Presented at : XXIII International congress of the international academy of pathology and 14th world congress of academic and environment pathology 15-20 October, 2000 Nagoya, Japan.
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LOOP ELECTROSURGICAL EXCISION PROCEDURE (LEEP) AT MAHARAJ NAKORN CHIANG MAI HOSPITAL : PROBLEMS IN PATHOLOGIC EVALUATION

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Background : Loop electrosurgical excision procedure (LEEP) is widely used in diag-nosis and management of cervical lesions. Difficulties in histopathologic evaluation of LEEP specimens, particularly for the margin status, have been reported to be a significant disadvantage of the procedure.
Method : The histologic slides of the specimens from 163 patients who underwent LEEP at Maharaj Nakorn Chiang Mai Hospital from August 1995 to November 1997 were retrospectively reviewed for the degree of thermal artefact and the margin status. Follow-up data after a 6-month-period were correlated with the margin status.
Results : Thermal artefact was present in all cases (mild 51.5%, moderate 36.2%, and severe 12.3%). In only one case, histologic diagnosis of the lesion was not possible due to severe thermal artefact. Nine cases (5.5%) had non-evaluable margins due to either thermal artefact (7 cases) or improper orientation of fragmented tissue (2 cases). Of 90 cases with subsequent surgical specimens, residual diseases were present in 4 of 21 (19.0%) with negative LEEP margins, in 31 of 64 (48.4%) with positive margins, and in 4 of 5 (80.0%) with non-evaluable margins.
Conclusions : Pathologic evaluation of the specimens from LEEP was limited in only a minority of cases. Thermal artefact was not a critical disadvantage of LEEP. The positive or negative margin status was correlated with the risk of residual disease.

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CYTOLOGY OF SMALL-CELL CARCINOMA OF THE UTERINE CERVIX IN SEROUS EFFUSION : A REPORT ON TWO CASES

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Cytologic features of 2 cases of small-cell carcinoma of the uterine cervix in the body fluid are described. Case I was a 34-yr-old woman with a stage IIA cervical tumor. Pleural effusion developed 6 mo after initial diagnosis. Case 2 was a 38-yr-old woman with a stage IB tumor. Ascites was detected 11 mo after hysterectomy. Histologically, both cervical tumors were indistinguishable from small-cell carcinoma of oat-cell type in the lungs or other sites. Cytologically, the tumor cells in the pleural effusion of case I had characteristic features of small-cell carcinoma, including nuclear molding. However, almost all tumor cells in the ascites of case 2 showed a single-cell pattern mimicking malignant lymphoma. Mitotic figures and karyorrhetic bodies were occasionally seen. Nuclear molding was rarely identified. Small-cell carcinoma should be included in the differential diagnosis of malignant effusions containing lymphoma-like cells.

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PHASE II TRIAL OF DOCETAXEL AND CARBOPLATIN IN CISPLATIN-RECURRENT ADVANCED OVARIAN CANCER :A PRELIMINARY REPORT

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Background : Patients with recurrent ovarian cancer have a poor prognosis with low response rates and short survival after salvage chemotherapy. In view of encouraging antitumor activity of docetaxel in the preclinical and phase I studies and the synergistic antitumor effect of this agent when combined with carboplatin, we accordingly, conducted a phase II trial of this regimen in patients with cisplatin-recurrent advanced ovarian cancer.
Objective : To evaluate the response rate and toxicity of docetaxel and carboplatinin in patients with cisplatin-recurrent advanced epithelial ovarian cancer (EOC).
Methods : Twenty patients with cisplatin – recurrent EOC were recruited between October 1999- November 2001. Eligibility criteria included measurable > 2 cm. in diameter EOC. Age > 18 years old, an ECOG performance status of 0-2, adequate hepatic, renal and bone marrow function, and written informed consent. Docetaxel 75 mg/m2 as 1 hour IV infusion and carboplatin AUC 5 were given on day 1 every 3 weeks for a maximum 6 cycles. All patients were evaluated for response, progression free survival (PFS) and WHO grading toxicity.
Results: Sixteen patients had recurrence more than 6 months (range 8-24 months) after cisplatin. Three patients had disease progression during receiving of cisplatin and 1 had recurrence within 6 months after receiving cisplatin. Four patients were withdrawn from the study because of moderated hypersensitivity (1 case), refusal of chemotherapy due to febrile neutropenia (2), and loss to follow up after 4 cycles (1 case). Fifteen patients were assessable for response. Eight patients had progression of disease. The overall response rate was 7 of 15 (46.7%) with 1 CR and 6 PR, all were the platinum sensitive patients. The median PFS was 9 months (95% CI = 6-12). Of the 88 cycles, grade 3 or 4 leukopenia and neutropenia occurred in 63.7% and 84.1%, respectively. Febrile neutropenia was found in 29.5%. Other toxicity was minimal.
Conclusion: The combination of docetaxel and carboplatin appear to have moderate efficacy and manageable toxicity in patient with cisplatin-recurrent epithelial ovarian cancer.

(Abstract#897). 38th Annual meeting : American Society of Clinical Oncology (ASCO) Conference. Orando, Florida,USA, 19 May,2002.

THE ROLE OF EXTRAPERITONEAL PELVICLYMPHADENECTOMY IN MANAGEMENT OF EARLY–STAGE CERVICAL CANCER : CHIANG MAI EXPERIENCE

Jatupol Srisomboon *, Chailert Phongnarisorn *, Prapaporn Suprasert *, Kittipat Charoenkwan *, Chalong Cheewakriangkrai *, Sitticha Siriaree *, Patchaneeporn Porapakkham *, Aree Pantasart *, Sumalee Siriaunkgul **, Surapan Khunamornpong **

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Lymph node metastases is the most important prognostic factor of early–stage cervical cancer after treatment by radical hysterectomy and pelvic lymphadenectomy (RHPL). For patients who have negative lymph nodes, the 5–year survival rate is 85–95 % compared with 40–60% of patients with positive lymph nodes.

Surgical evaluation of pelvic lymph nodes prior to radical surgery could be performed via either transperitoneal or extraperitoneal approach. However, in patients receiving radiation therapy (RT) following transperitoneal pelvic lymphadenectomy (TPL), bowel complications (30%) are significantly higher than those (2.5%) receiving RT after extraperitoneal pelvic lymphadenectomy (EPL). In cases with grossly enlarged lymph nodes, radical hysterectomy should be abandoned to minimize serious morbidity occurring after combined treatment with radiation.

Our experience with EPL in management of early – stage cervical cancer are as follows
1. Stage IA2 cervical cancer patient undergoing inadvertent simple hysterectomy. The incidence of lymph node metastases is 5 – 7% and parametrial involvement is only 0.5%. We report 1 patient undergoing only EPL without morbidity.
2. Stage IB cervical cancer patients undergoing inadvertent simple hysterectomy. The incidence of lymph node metastases is 15 – 25% and parametrial involvement is 15 – 30%. We report 2 patients undergoing EPL followed by radical parametrectomy and upper vaginectomy without serious complications.
3. Stage IB – IIA cervical cancer. 30 patients treated with EPL prior to radical hysterectomy with uneventful consequence are presented. Radical hysterectomy was abandoned and treatment plan was switched to radiation therapy in 20% of cases by using this approach.

In conclusion, EPL could be safely performed before radical surgery or radiation for early – stage cervical cancer.

Presented at : 7th Annual Meeting of The Thai Gynecologic Oncology Group. Montien Hotel Pattaya, Thailand, August 10 – 12, 2002.

INVASIVE CERVICAL CANCER IN HUMAN IMMUNODEFICIENCY VIRUS INFECTED WOMEN IN CHIANGMAI, THAILAND

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Purpose : To evaluate treatment results of radiation, concurrent chemoradiation and the characteristics of invasive cervical carcinoma in human immunodeficiency virus (HIV) infected women.
Methods and materials : This is a descriptive analysis of 70 HIV – seropositive women with histologically confirmed invasive carcinoma of cervix. The documentation of HIV infection was confirmed with 2 times ELISA tests. All patients were clinically staged by gynecologic oncologist and radiation oncologist according to the FIGO staging system. Between January 1995 and December 2000 only 54 patients completed the planned treatments, which were radiotherapy and chemoradiotherapy. The mean follow – up time was 10.3 months, range 0.4 – 55.8. The Kaplan – Meier method was used for survival and disease – free survival analysis.
Results : The median age of the 70 patients was 38 years, range 22 – 61 years. The histology of sixty – three patients were squamous cell carcinomas, 4 were adenocarcinomas, 2 were adenosquamous cell carcinomas, and 1 was small cell carcinoma. Twelve (17%) patients were stage IB, 3(4.3%) were stage IIA, 27(38.6%) were stage IIB, 25(35.7%) were stage IIB, and 3(4.3%) were stage IVB. The 2 – year disease – free survival rate was 33.17%. The median time to progression was 9.5 months. We also founded that the patients with pretreatment lymphocyte counts more than 1,500 cells per cubic millimeters represented the better overall survival (p – value 0.042).
Conclusion : HIV infected patients represented a unique subset of cervical carcinoma and required the unique management. Radiation therapy and chemotherapy may be inadequate for these patients. Invasive cervical carcinoma in HIV infected women were diagnosed in younger age group, were in more advanced stage and had more rapid progression than immunocompetent patients. The degree of immunosuppression (pretreatment lymphocyte counts less than 1,500 cells per cubic millimeters) had significant effect on survival.

Presented at : 26th Annual Scientific Meeting on Mahidol's Day of The Faculty of Medicine, Chiang Mai University, Chiang Mai, September 24, 2002 (abstract page 36)

METASTATIC OR RECURRENT CERVICAL CANCER TREATED BY CISPLATN PLUS 5FU

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Objective : To assess the efficacy of chemotherapy with cisplatin and 5FU combination in patients with metastatic or recurrent cervical cancer.
Methods : Between October, 1999 and September 2001, 11 patients with metastatic/recurrent disease were enrolled to receive cisplatin : 80 – 100 mg/m^2 on day 1 in combination with 5FU : 800–1,000 mg/m^2 per day on day 1 through 4. Chemotherapy was administered on 3 week – schedule. Median age was 49 years (range 35 – 59); median ECOG performance status was 1.
Results : All eleven patients were evaluable for efficacy and safety. A total of 55 cycles were given with a median number of 6 cycles (range 4 – 6). Grade 3 anemia was recorded in 1 patient (9.1%). No patients experienced grade 3 – 4 neutropenia and infection. The main nonhematologic toxicity was nausea/vomiting but grade 3 was observed in only 1 patient (9.1%). Three patients achieved a complete response (27.3%) and 5 patients a partial response (45.5%); the overall response rate was 72.8%. The median progression – free survival was 8 months (7 – 16) with the median follow – up time of 10 months (4 – 17).
Conclusion : Our data confirm the efficacy of cisplatin+ 5FU regimen in cervical cancer. On this basis, phase III study is required to compare this regimen with others for this tumor.

Presented at : 26th Annual Scientific Meeting on Mahidol's Day of The Faculty of Medicine, Chiang Mai University, Chiang Mai, September 24, 2002 (abstract page 37)

RADIOCHEMOTHERAPY FOR LOCALLY ADVANCED SQUAMOUS VULVA CARCINOMA

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Objective : To evaluate a regimen of radiochemotherapy as an alternative treatment for those patients with locally advanced squamous cell carcinoma of the vulva.
Methods : Between July 1999 and February 2002, there were 11 patients with the diagnosis of squamous cell carcinoma of the vulva. Nine patients were stage IVA at presentation and 2 patients presented with stage III. All patients had biopsy prior to the treatment, and were treated with radiochemotherapy. Treatment included two cycles of chemotherapy with mitomycin – c (12 mg/m^2 on day 1) and fluorouracil (5FU 800 – 1,000 mg/m^2 on days 1 through 4) in addition to radiotherapy. Total radiation doses to the vulva and groins ranged from 45 to 70 Gy (median = 60), with pelvic doses of 45 to 60 Gy (median = 50).
Results : There was a 100% overall response rate with complete responses in 7 patients (63.6%). Moist desquamation was the most important acute complication and required treatment interruptions in 2 patients. Among patients with complete clinical response, there has been 1 recurrence with the median follow–up of 8 months (2–21), and the time to progression was 5 months for this patient.
Conclusion : This experience suggests that initial treatment with radiation and chemotherapy may offer some patients with locally advanced squamous cancer of the vulva an alternative to exenterative surgery and may hold curative potential for some patients with surgically unresectable of medically inoperable tumor.

Presented at : 26th Annual Scientific Meeting on Mahidol's Day of The Faculty of Medicine, Chiang Mai University, Chiang Mai, September 24, 2002 (abstract page 38)

EVALUATION OF SAFETY AND EFFICACY OF TTS–FENTANYL IN ADULT PATIENTS WITH GYNECOLOGICAL CANCER – RELATED PAIN

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Background : Fentanyl, a synthetic strong opioid, has been recently incorporated into the Transdermal Therapeutic System [TTS]. The advent of a rate – limiting membrane provides constant release of the opioid. This trial was designed to establish the analgesic safety and efficacy of TTS – fentanyl in the treatment of chronic gynecologic cancer – related pain.
Objective : To assess the analgesic safety and efficacy of TTS–fentanyl in the treatment of chronic gynecologic cancer – related pain.
Patients and Methods : Thirty eligible patients were recruited into the study. Mean age was 47 years old. This open study comprise two phase. Phase 1 : an oral morphine stabilization phase, eligible patient who took other opioids and/or analgesic drugs were entered into the stabilization phase and should be converted to oral morphine according to conversion chart. The patients was then titrated to a stable oral morphine dose. Phase 2 : an open TTS – fentanyl treatment phase, the daily dose of oral morphine was switched to TTS – fentanyl according to conversion chart. The efficacy parameters are pain score assessments by visual analogue scale [VAS] and global assessments. The safety was evaluated by mornitoring the patient's clinical conditions and adverse events.
Results : TTS – fentanyl was generally well tolerated. Only 1 patient was terminated due to TTS – fentanyl treatment use because of adverse events. The most frequence was nausea or vomiting [46%] and constipation [33%]. The median pain VAS during TTS – fentanyl treatment decreased from 8 to 3 and global assessments at the end of treatment was better than the start of treatment.
Conclusion : The results suggest that TTS – fentanyl is safe and effective in managing chronic gyenecological cancer – related pain.

Presented at : 26th Annual Scientific Meeting on Mahidol's Day of The Faculty of Medicine, Chiang Mai University, Chiang Mai, September 24, 2002 (abstract page 40)

TECHNIQUE AND APPLICATION OF EXTRAPERITONEAL PELVIC LYMPHADENECTOMY IN CERVICAL CANCER

Jatupol Srisomboon, Chailert Phongnarisorn, Prapaporn Suprasert, Kittipat Charoenkwan, Sitthicha Siriaree, Chalong Cheewakriangkrai, Patchaneeporn Porapakkham.

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Transperitoneal pelvic lymphadenectomy has been reported to be hazardous for cervical cancer patients who subsequently require radiation therapy when compared with those who undergo extraperitoneal pelvic lymphadenectomy (EPL). In addition to minimizing adhesion formation from peritoneal injury, extraperitoneal approach provides exposure of the retroperitoneal space, pelvic vessels and ureter while having an intact peritoneum to aid in retraction.

EPL can be preformed via either midline or Maylard incision. The rectus muscles are bluntly dissected from the underlying peritoneum to enter the extraperitoneal space of the pelvis. The inferior epigastric vessels are clamped, cut and ligated. The Retzius space and paravesical space are developed by blunt dissection. The peritoneum is freed from iliac vessels and Cooper ligament by using blunt dissection with either the hand or a spongestick. Dissection is continued until obturator nerve is clearly visible deep in the pelvic side wall. The round ligament is then transected and ligated at its exit through the inguinal ring, this will aid in further exposure of the lateral space. The ureter is then easily identified on the peritoneum. A self – retaining retractor or 2 retractors are placed over the peritoneum and the patient is tilted toward the opposite side to aid further exposure of the pelvic vessels and obturator space. Pelvic node dissection could be carried out in a traditional fashion.

EPL could be applied in management of 1) stage IA2/IB cervical cancer patients undergoing inadvertent simple hysterectomy; 2) stage IA2 – IIA cervical cancer patients with planned Wertheim operation, if lymph node metastases is detected, radical hysterectomy should be abandoned; 3) cervical cancer patients prior to radiation therapy (surgical staging), if lymph node metastases is detected above the common iliac vessels, extended – field radiation should be instituted in addition to pelvic radiation.

Presented at 17th Annual Scientific Meeting of The Royal Thai College of OB & GYN. Lee Garden Plaza Hotel, Songkhla, Thailand, October 16–18, 2002.

SURGICAL EVALUATION OF PELVIC LYMPH NODES BY EXTRAPERITONEAL PELVIC LYMPHADENECTOMY BEFORE RADICAL HYSTERECTOMY FOR EARLY STAGE CERVICAL CANCER

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Background : Lymph node metastases is the most important prognostic factor affecting survival of cervical cancer patients treated with radical hysterectomy. Complete removal of macroscopically positive nodes is of therapeutic advantage for patients compared to those who did not undergo resection of grossly positive nodes. Radiation – associated bowel complication could be dramatically reduced after node dissection was performed via extraperitoneal approach compared with transperitoneal approach.
Objective : To determine the clinical benefit of extraperitoneal pelvic lymphadenectomy (EPL) prior to radical hysterectomy (RH) in early – stage cervical cancer.
Methods : Between April 1, 2002, and June 30, 2002, 30 patients with stage IA – IIA cervical cancer underwent EPL before RH. Clinically enlarged nodes were completely resected and pathologically evaluated by frozen section. RH was abandoned in case of positive nodes. Perioperative data and early complications were recorded.
Results : The patients were in stage IA with positive margins for invasive cancer (1), IB1 (20), IB2 (2), and IIA (7). The time from skin incision to complete EPL ranged from 45 mins, to 117 mins, with a mean of 65.5 mins. The total operative time ranged from 170 mins to 350 mins with a mean of 221 mins. The number of lymph nodes removed ranged from 7 – 55 with a mean of 28.5. The number of positive nodes ranged from 1 – 10 with a mean of 4.1. Macroscopically positive nodes were detected at EPL in 6 patients (20%) in whom RH was abandoned. Positive nodes were subsequently microscopically diagnosed in 3 patients (10%) who underwent EPL followed by RH. Three patients received adjuvant pelvic radiation for close surgical margins (2) and parametrial involvement (1). Of note is that 5 of 7 patients (71%) with stage IIA cervical cancer had positive pelvic nodes. Overall, 12 patients (40%) received postoperative radiation. No major complication was noted during EPL. Bladder injury occurred in 2 patients during RH
Conclusion : EPL can be safely performed to clinically evaluate the lymph node status in cervical cancer patients prior to radical hysterectomy. Treatment plan was switched to radiation therapy in 20% of patients by using this approach.

Presented at : 17th Annual Scientific Meeting of The Royal Thai College of OB & GYN. Lee Garden Plaza Hotel, Songkhla, Thailand, October 6 – 18, 2002.

PREVIOUS HYSTERECTOMY IN PATIENTS WITH OVARIAN CANCER : A 14 – YEAR REPORT FROM CHIANG MAI UNIVERSITY

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Division of Gynecologic Oncology, Department of OB & GYN, Faculty of Medicine, Chiang Mai University

Objective : To determine the impact of prophylactic oophorectomy as a preventive measure for ovarian cancer in Thai women.
Methods : Medical records of 1,058 women with ovarian cancer evaluated and treated at Chiang Mai University Hospital between January 1988 and December 2001 were reviewed in an attempt to identify those who had hysterectomy performed with conservation of one or both ovaries at any point prior to diagnosis of ovarian cancer. Pertinent clinical and pathologic data of the women in this subset were further reviewed in detail.
Results : Of 1,058 women, 19 women (1.8%) had hysterectomy performed prior to diagnosis of ovarian cancer with 3 women (0.28%) had hysterectomy done at the age of 45 or above. The mean interval between the hysterectomy and the diagnosis of ovarian cancer was 8.6 years (range 7 months – 25 years). Considering the rate of prior hysterectomy at age 45 or beyond of 0.28% and the annual national ovarian cancer incidence of 1,252 cases, an estimated 3 – 4 cases of ovarian cancer could be prevented annually if prophylactic bilateral oophorectomy at the time of hysterectomy were routinely offered in this region.
Conclusions : The role and impact of incidental oophorectomy at the time of hysterectomy in general population as a preventive measure for subsequent ovarian cancer appeared to be significantly less prominent in this region of the world compared to Western or industrialized countries.

Presented at : 17th Annual Scientific Meeting of The Royal Thai College of OB & GYN. Lee Garden Plaza Hotel, Songkhla, Thailand, October 16 – 18, 2002.

THE NECESSITY OF ROUTINE HEMOGLOBIN CHECK–UP IN CERVICAL CANCER PATIENTS RECEIVING RADIATION THERAPY.

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Objective : To evaluate the value of weekly hemoglobin check up in cervical cancer patients receiving radiation therapy.
Design : Descriptive analysis.
Setting : Division of Gynecologic Oncology, Department of Obstetrics & Gynecology and Division of Therapeutic Radiology and Oncology, Department of Radiology, Faculty of Medicine, Chiang Mai University.
Methods : The medical records of cervical cancer patients admitted in gynecologic oncology ward between October 2001 and May 2002 were reviewed to evaluate the clinical characteristics and weekly hemoglobin level.
Results : There were 58 cervical cancer patients receiving radiation therapy in the study period. The median age was 56.9 years (range 25 – 81). Distribution by FIGO staging was stage I 3 (5.2%), II 21 (36.2%), III 29 (50%), and IV 1 (1.7%). Twenty – four (43.1%) patients had baseline hemoglobin less than 10 gm/dl. Among these patients, grade 2 – 4 anemia was found in 6 – 15 patients per week with a mean of 9.2 (38.5%) in week 1 – 4. Between week 5 – 8, grade 2 – 4 anemia was found in 4 – 10 patients per week with a mean of 6 (25%). Among 34 patients with based line hemoglobin $\geq$ 10 gm/dl, grade 2 – 4 anemia was found in 4 – 6 patients per week with a mean of 5.2 (15.4%) in the first 4 weeks. After week 4, grade 2 – 4 anemia was found in only 2 – 3 patients per week with a mean of 2.3 (6.8%).
Conclusion : For cervical cancer patients with baseline hemoglobin less than 10 gm/dl, weekly hemoglobin level should be checked during radiation therapy. Among those with baseline hemoglobin more than 10 gm/dl, weekly hemoglobin check – up may not be necessary.

Presented at : 17th Annual Scientific Meeting of The Royal Thai College of OB & GYN. Lee Garden Plaza Hotel, Songkhla, Thailand, October 16 – 18, 2002.

WELL-DIFFERENTIATED VILLOGLANDULAR ADENOCARCINOMA OF THE UTERINE CERVIX : CYTOMORPHOLOGIC OBSERVATION OF FIVE CASES

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We retrospectively examined the cytologic findings of well-differentiated villoglandular adenocarcinoma (VGA) treated in our hospital. Cervical smears of four cases and a touch preparation of another case of VGA formed the materials for the study. The cytologic features were correlated with the histomorphology of VGA. Architecturally, long slender papillae and cohesive branching epithelial sheets with smooth borders and a lack of feathery edge were observed. Crowding and overlapping of nuclei were noted. The nuclei were uniform, small, and round to oval-shaped, with evenly distributed granular chromatin. Nucleoli were absent or inconspicuous. Mitoses were occasionally seen in all but one case. As the features of VGA are distinctive, the diagnosis could be possible on cytological grounds. Examination of cervical smears would be helpful for an early diagnosis of VGA or to suggest the coexistence of other neoplastic components.

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SCRAPE CYTOLOGY OF THE OVARIES : POTENTIAL ROLE IN INTRAOPERATIVE CONSULTATION OF OVARIAN LESIONS.

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Intraoperative diagnosis of ovarian lesions can be achieved by gross examination with the help of frozen sections and/or cytologic examination. Various cytologic techniques, including imprint, fine-needle aspiration, and scrape, may be used. In this study, we evaluated the application of scrape cytology in the diagnosis of ovarian lesions occurring during a 16-mo period at one institution. The cytologic diagnosis was primarily based on findings in air-dried, Diff-Quik-stained smears in correlation with clinical and intraoperative findings. In total, 131 histologically proven ovarian lesions, including 13 nonneoplastic lesions, 47 benign tumors, 17 epithelial tumors of low malignant potential (LMP), and 54 malignant tumors (35 primary, 1 leukemia, and 18 metastases), were cytologically examined. The accuracy of scrape cytology was 95 % in the benign, 47 % in the LMP, and 98 % in the malignant group. In the LMP group, the false-negative rate was 12 %, while the deferred rate and false-positive rate were 24 % and 18 %, respectively. There was no misdiagnosis between the benign and malignant categories. The histologic subtypes were correctly predicted in 78 % of cases. There were limitations of scrape cytology in the diagnosis of LMP and mucinous tumors, which require histologic architectural evaluation and adequate histologic sampling. Scrape cytology is a simple, rapid, and inexpensive adjunctive technique that should be used in intraoperative consultation for ovarian lesions.

Published in : Diagn Cytopathol 2003; 28(5) : 250-7.

PREVALENCE AND PREDICTING FACTORS FOR PELVIC LYMPH NODE METASTASIS IN STAGE IB1 CERVICAL CARCINOMA.

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Jatupol Srisomboon,* Surapan Khunamornpong ,** Prapaporn Suprasert *

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Objective : *To determine the prevalence of pelvic nodal metastasis and predicting factors in women with stage IB1 carcinoma of the cervix who underwent radical hysterectomy and pelvic lymphadenectomy.*
Design : Cross sectional analytic study **Setting:** Department of OB & GYN, Faculty of Medicine, Chiang Mai University
Subjects : *Patients with stage IB1 carcinoma of the cervix who underwent radical hysterectomy and pelvic lymphadenectomy at Chiang Mai University Hospital between January 2000 and December 2002.*
Results : Of 251 evaluable patients, radical hysterctomy was performed in 232 patients (92 %) and was abandoned in 19 patients (8 %). The prevalence of lymph node metastasis was 24 %. No clinical factors were significantly associated with pelvic lymph node metastasis. Histologic grade, depth of invasion, lymphvascular space invasion, parametrial invasion, and uterine invasion were significantly correlated with pelvic lymph node metastasis. From logistic regression analysis, the independent predicitng factors for pelvic nodal metastasis were lymph vascular space invasion ($p < 0.0001$) and parametrial invasion ($p = 0.02$).
Conclusion : The prevalence of pelvic lymph node metastasis in stage IB1 carcinoma of the cervix is 24 %. The strongest predicting factors of node metastasis are lymphvascular space invasion and parametrial invasion.

Presented at : The 18th Annual Scientific Meeting of The Royal Thai College of OB & GYN, The Royal Golden Jubilee Building, Bangkok Thailand, 15-17 October, 2003 (abstract page 182)
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OUTCOME OF HIGH-RISK EARLY STAGE CERVICAL CANCER TREATED WITH RADICAL HYSTERECTOMY AND PELVIC LYMPHADENECTOMY.

Thitima Siriwaranya, * Prapaporn Suprasert ,* Sumalee Siriaunkgul ,** Surapan Khunamornpong ,** Jatupol Srisomboon ,* Kittipat Charoenkwan ,*
Sitthicha Siriaree ,* Chailert Phongnarisorn ,* Chalong Cheewakriangkrai ,*
Vicharn Lorvidhaya .***

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*** Division of Therapeutic Radiology and Oncology, Department of Radiology.
Faculty of Medicine, Chiang Mai University

Objective : *To evaluate the survival and complications of high-risk early stage cervical cancer treated with radical hysterectomy and pelvic lymphadenectomy.*
Design : Retrospective descriptive study.
Setting : Division of Gynecologic Oncology Department of Obstetrics and Gynecology, Faculty of Medicine, Chiang Mai University.
Subject : 157 patients with FIGO stage IA2 to IIA cervical cancer treated between January 1998 to January 2003, undergoing radical hysterectomy with pelvic lymphadenectomy and had at least one high risk pathological factors.
Intervention : Pelvic lymphadenectomy was initially performed followed by radical hysterectomy. Patients with high risk pathological factors were treated with adjuvant radiation with or without concurrent chemotherapy.
Result : With median follow up of 26 months, the projected 5-year progression-free survival and overall survival were 80.0 % and 92.8 % respectively. Treatment-related complication occurred in 15 patients (9.5 %), all of these patients received adjuvant radiation. The incidences of lymph node metastasis and parametrial involvement were 18.8 % and 11.2 % respectively. Tumor recurrence occurred in 12 patients(7.6 %) in which 8 of these has lymph node metastasis, the remaining had parametrial invasion.
Conclusion : Early stage cervical cancer patients with high-risk pathological factors had relatively high survival rate with low complication in this setting.

Presented at : The 18th Annual Scientific Meeting of The Royal Thai College of OB & GYN, The Royal Golden Jubilee Building, Bangkok Thailand, 15-17 October, 2003 (abstract page 214)
Published in : Thai J Obstet Gynaecol 2003 ; 15 : 93 – 9.

THE FREQUENCY AND OUTCOME OF ABANDONED RADICAL HYSTERECTOMY IN CHIANG MAI UNIVERSITY HOSPITAL.

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Sumalee Siriaunkgul,** Surapan Khunamornpong,** Sitthicha Siriaree *
Chailert Phongnarisorn,* Thitima Siriwaranya, *
Chalong Cheewakriangkrai,. * Vicharn Lorvidhaya **

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*** Division of Therapeutic Radiology and Oncology, Department of Radiology,
Faculty of Medicine, Chiang Mai University

Objective : *To evaluate the frequency and outcome of the abandoned radical hysterectomy (RH) in patients with cervical cancer.*
Design : Retrospective study **Setting :** Division of Gynecologic Oncology, Department of OB & GYN, Faculty of Medicine, Chiang Mai University.
Material & Methods : Between December 2000 and January 2003, the medical records of stage IA2-IIA cervical cancer patients planned to undergo radical hysterectomy and pelvic lyphadenectomy (RHPL) were reviewed. The clinical characteristics and disease free survival (DFS) in patients whose plan for radical hysterectomy was abandoned due to positive nodes were compared with those who had positive nodes after RHPL.
Results : There were 242 patients undergoing RHPL in the study period. Of these patients, 23 cases (9 %) were found at the operation to have grossly positive pelvic nodes. The radical hysterctomy was abandoned and only pelvic and paraaortic lymph node dissection were carried out. Six patients (26.1 %) received neoadjuvant chemotherapy. Twenty-two (95.6 %) patients subsequently received concurrent chemoradiation. One patient received radiation alone. Extended field radiation of paraaortic area were added in 4 (17.4 %) cases who had positive paraaortic nodes. When compared with 62 patients who had positive nodes after RHPL, there were statistically significant difference in terms of histology, number of positive nodes and tumor size. The adenocarcinoma was more frequent in group of abandoned-RH (34 % vs 11 %, $P = 0.01$). The mean number of positive nodes (5 vs 1, $P = 0.01$) and tumor size (3.1 vs 2.1 cm, $P = 0.02$) in the abandoned RH group were also higher than those of the RHPL group (21 %) vs 11 %, $P = 0.01$). The 2-year DFS was nearly statistically significant lower in the abandoned-RH group when compared with the RHPL group (68 % vs 93 %, $P = 0.06$).
Conclusion : Larger tumor size, number of positive nodes, adenocarcinoma histology, and complication are significantly more common in the abandoned-RH patients. The DFS of these patients is lower than those whose positive nodes are detected after RHPL.

Presented at : The 18th Annual Scientific Meeting of The Royal Thai College of OB & GYN, The Royal Golden Jubilee Building, Bangkok Thailand, 15-17 October, 2003 (abstract page 247)

CONCURRENT MITOMYCIN C, 5-FLUOROURACIL, AND RADIOTHERAPY IN THE TREATMENT OF LOCALLY ADVANCED CARCINOMA OF THE CERVIX : A RANDOMIZED TRIAL

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* Faculty of Medicine, Chiang Mai University** Siriraj Hospital, Mahidol University, *** Chulalongkorn Hospital, Chulalongkorn University + Rajvithi Hospital,
++ National Cancer Institute, +++ Bhumibol Adulyadej Hospital

Purpose : This is a prospective, Phase III multicenter randomized trial to assess the effectiveness of concurrent intravenous mitomycin C, oral 5-fluorouracil (5-FU), and radiotherapy (RT) in locally advanced carcinoma of the cervix.
Methods and Materials : Between January 1988 and November 1994, 926 patients with locally advanced carcinoma of the cervix, FIGO Stage IIB-IVA, were entered into this study. The patients were randomized into four arms, as follows : Arm 1 : conventional RT; Arm 2 : conventional RT and adjuvant chemotherapy; Arm 3 : conventional RT plus concurrent chemotherapy; Arm 4 : conventional RT plus concurrent chemotherapy and adjuvant chemotherapy. Concurrent chermotherapy consisting of intraventous mitomycin C at 10 mg/m2 was given on Days 1 and 29, and oral 5-FU at 300 mg/day was administered on Days 1-14 and 29-42 during RT. Adjuvant chemotherapy of 5-FU orally at 200 mg/day was given for three courses of 4 weeks, with a 2-week rest every 6 weeks. Six centers participated in the trial.
Results : The median follow-up time was 89 months. Acute side effects were generaly higher in concurrent arms, but most of the patients tolerated the treatment well. Bone marrow toxicity was also higher in concurrent arma. The 5-year actuarial disease-free survival (DFS) was 48.5%, 54.1%, 64.5% and 59.7% for arms 1,2,3, and 4, respectively. The pattern of failure revealed a significant increase in locoregional recurrence in the nonconcurrent chemotherapy arm. The local recurrence was 25.5%, 20.6%, 14.3%, and 17.6% for arm 1,2,3, and 4, respectively. The metastatic rates were not significantly different in all four arms. At the time of analysis, there were no increases in late side effects, especially in gastrointestinal and genitourinary systems.
Conclusions : Concurrent chemotherapy, mitomycin C, and 5-FU together with conventional RT showed an improved DFS rate when compared with conventional RT alone in patients with locally advanced carcinoma of the cervix.

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PHASE II CLINICAL STUDY OF IRINOTECAN AND CISPLATIN AS FIRST-LINE CHEMOTHERAPY IN METASTATIC OR RECURRENT CERVICAL CANCER

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Objective : The goal of this study was to evaluate the efficacy and tolerability of irinotecan plus cisplatin as first-line chemotherapy in metastatic or recurrent cervical cancer.
Methods : Chemotherapy-naive patients with metastatic or recurrent disease and at least one measurable tumor site received irinotecan (60 mg/m2 IV infusion over 90 min) on Days 1,8 and 15, followed by cisplatin (60 mg/m2 IV over 90 min) on Day 1, every 28 days for a maximum of six cycles.
Results : Thirty patients were included in the response and toxicity analysis. The median age was 45 years (34-65). Nineteen patients had metastatic disease, 6 presented with locally recurrent disease, and 5 presented with locally recurrent plus metastatic disease. Seven patients were stage IVB at diagnosis. There were 2 complete and 18 partial responses and overall response rate was 66.7 % (95 % confidence interval : 47-85 %). Stable disease was observed in 2 patients (6.7 %) and progression in 8 (26.7 %). Median time to relapse was 13.4 months, with a median survival time of 16.9 months. One-year disease-free survival and overall survival were 26.7 and 65.1 %, respectively. Dose-limiting toxicity was observed in 4 patients (13.3 %) with grade 3 renal toxicity. Nine patients (30 %) developed grade 3 neutropenia, and only grade 1-2 acute and late diarrhea were observed in 20 and 40 %, respectively. A patient developed pancolitis after the sixth cycle. There were no chemotherapy-related deaths.
Conclusion : The combination of irinotecan and cisplatin is a clinically active regimen for metastatic and/or recurrent cervical cancer with acceptable tolerability.

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ROLE OF PROPHYLACTIC OOPHORECTOMY AT THE TIME OF HYSTERECTOMY IN OVARIAN CANCER PREVENTION IN THAILAND.

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Aim : To determine the impact of prophylactic oophorectomy on ovarian cancer prevention in Thai women by estimating the magnitude of reduction in ovarian cancer incidence in Thailand if the procedure was routinely offered.
Methods : A database of 752 women with epithelial ovarian cancer treated at Chiang Mai University Hospital between January 1990 and December 2001 was reviewed in an attempt to identify those who had hysterectomy performed for indications other than ovarian and corpus cancer with conservation of one or both ovaries prior to diagnosis of ovarian cancer. Pertinent clinical and pathologic data of the women in this subset were further reviewed in detail.
Results : Of 752 ovarian cancer patients, 13 (1.73 %) had hysterectomy performed prior to the diagnosis of ovarian cancer with only one woman having (0.13 %) had a hysterectomy at the age of 45 or above. The mean interval between the hysterectomy and the diagnosis of ovarian cancer was 9.9 years (range 2.25). considering the rate of prior hysterectomy at age 45 or beyond of 0.13 % and the annual national ovarian cancer incidence of 1252 cases, an estimated one to two cases of ovarian cancer could be prevented annually if prophylactic bilateral oophorectomy at the time of hysterectomy in a woman age 45 or beyond were routinely offered in Thailand.
Conclusion : Prophylactic oophorectomy at the time of hysterectomy in general Thai population as a preventive measure for subsequent ovarian cancer should not be recommended without complete knowledge of patients' socioeconomic background and propensity to comply with hormone replacement therapy regimens.

Published in : J Obstet Gynaecol Res 2004; 30(1) : 20-23.

COMPARISON OF ORAL VERSUS INTRAVENOUS RAMOSETRON IN PREVENTION OF ACUTE CISPLATIN – INDUCED EMESIS : A RANDOMIZED CONTROLLED TRIAL.

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Objective : To compare the antiemetic efficacy of a single oral versus intravenous (IV) ramosetron, a new class of selective 5 – HT, receptor antagonists, in gynecologic cancer patients receiving high – dose cisplatin.
Method : Between February 2003 and July 2003, 109 patients with gynecologic cancer scheduled to receive single agent cisplatin chemotherapy at a dose of 75 mg/m^2 were randomized to receive either 0.2 mg oral (51 cases) or 0.3 mg IV (58 cases) ramosetron 1 h and 30 min respectively before chemotherapy. Patients were evaluated for 24 h after chemotherapy. The number of nausea and vomiting including adverse events were recorded every 6 h.
Results : 51 and 58 patients received oral and IV ramosetron respectively. Both groups were similar regarding age, performance status, body mass index and diagnosis of gynecologic cancer. 95 percent of cases were cervical cancer. Antiemetic effect was significantly higher in the oral group when compared with the IV group during the first 6 hours and during the period of 18 to 24 hours after administration of cisplatin chemotherapy. Overall in 24 h, patients receiving oral ramosetron experienced no emesis slightly higher than that of the IV group (55% and 36% respectively, p = 0.05). Adverse events were mild and transient and were not significantly different in both groups, except tiredness which was more frequent in the IV group.
Conclusion : Oral ramosetron at a dosage of 0.2 mg is as effective as 0.3 mg of intravenous ramosetron in prevention of acute emesis in patients receiving 75 mg/m^2 of cisplatin chemotherapy.

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Presented at : The 56th Annual Scientific Meeting of Japan Society of Obstetrics and Gynecology, Tokyo, Japan, April 10 – 14, 2004.

PULMONARY METASTASES IN GESTATIONAL TROPHOBLASTIC TUMOR : 6 YEARS EXPERIENCE IN CHIANG MAI UNIVERSITY HOSPITAL

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Objective : To evaluate the patterns and clinical outcome of pulmonary metastases in patients with gestational trophoblastic tumor (GTT).
Methods : The medical records and chest films of GTT patients receiving treatment at Chiang Mai University Hospital between January 1998 and June 2003 were reviewed.
Results : There were 85 GTT patients in the study period. Of these patients 32 cases (37.6%) had pulmonary metastases. The mean age was 30 years (21 ~ 55 years). The previous pregnancy were abortion, term pregnancy and molar in 8 (25%), 10 (31.3%) and 14 (43.8%) respectively. The median interval between the previous pregnancy and development of GTT was 24 months (1 ~ 288 months). The median initial B – hCG level was 106,537 IU/L (range 140 – 2,557,500 IU/L). The metastases confined to the lungs alone in 10 cases (31.2%), and the remaining 22 patients had metastases elsewhere also, i.e. pelvic organs, brain, bladder, kidney, vagina, liver and spleen. Nine (28.1%) cases presented with lung symptoms. The most common pulmonary metastases pattern was multiple lung infiltration (16), followed by large and solitary nodule (11), pleural effusion (3), tiny infiltration (1) and atelectasis (1). Twenty – seven patients (84.4%) received multiple chemotherapy and 13 (40.6%) required more than one regimens. The mean number of chemotherapy was 7 cycles (range 3 ~ 23). Three patients received whole brain radiation for brain metastasis. Hysterectomy was performed in 12 (37.5%). Thoracotomy and craniotomy were each done in 2 patients. One case received chest radiation. Among 10 patients with only lung metastases, 8 (80%) had complete response with no recurrence, the remaining 2 patients were lost to follow – up. Among 22 patients with multiple organ metastases, 16 (72%) had complete response, 2 died from disease, 4 were lost to follow – up.
Conclusion : The most common pattern of pulmonary metastases was multiple lung infiltration followed by solitary nodule and pleural effusion. Patients with only lung metastases had better prognosis than those with lung and other organ metastases.

Presented at : The 56th Annual Congress of the Japan Society of Obstetrics and Gynecology, LeMeridien Grand Pacific Hotel, Tokyo, Japan, April 11 – 13, 2004.
* Received President Award of The JSOG

THE INCIDENCE OF CERVICAL INTRAEPITHELIAL NEOPLASIA BY CONTRACEPTIVE METHOD IN A COHORT OF THAI WOMEN.

Gupta SB, Srisomboon J, Liaw K, Wootipoom V, Go V, Yuenyao P, Vipupinyo C, Celentano D

Objective : To determine the incidence of cervical intraepithelial neoplasia (CIN) in women using different contraceptive methods.
Methods : This on – going prospective study enrolled 1255 Thai women aged 18 – 35 to examine the natural history of HPV infection and cervical neoplasia. Women are screened for cervical abnormalities every 6 months using the ThinPrep liquid – based cytology technique. Women with abnormal ThinPrep results undergo colposcopy, and subsequently, cervical biopsy if a lesion is visible under the colposcope.
Results : At the baseline visit, 1110/1255 (88%) women enrolled in the study had normal cytology results, including 324 (29%) oral contraceptive (OC) users, 426 (38%) injectable depot medroxyprogesterone acetate (DMPA) users, and 360 (32%) users of non – hormonal methods. The overall incidence of CIN 1 and CIN 2/3 in the cohort at the 6 – month visit was 4.07 and 1.11 per 100 person – years (PYs), respectively. The incidence of CIN 1 at the 6 – month visit was 0.74, 2.22, and 1.11 per 100 PYs in OC, DMPA, and non – hormonal method users, respectively. The incidence of CIN 2/3 was 0.92, 0, 0.18 per 100 PYs in OC, DMPA, and non – hormonal method users, respectively.
Conclusions : Compared to estimated incidence rates of cervical neoplasia in the literature, the incidence of CIN 1 and CIN 2/3 at the 6 – month follow – up visit in this cohort of Thai women is high. Although the incidence of CIN 1 was disproportionately higher in the DMPA group compared to users of other contraceptive methods, the incidence of CIN 2/3 was not higher in this group. More follow – up data are needed to examine whether there are true differences in the incidence of cervical neoplasia based on the contraceptive use.

Presented at : 21st International Papillomavirus Conference, Mexico City, Mexico 2004.

NERVE – SPARING RADICAL HYSTERECTOMY. A NEW TREND IN SURGICAL TREATMENT OF EARLY – STAGE CERVICAL CANCER TO REDUCE THE PELVIC AUTONOMIC NERVE INJURY : CHIANG MAI EXPERIENCE.

Kittipat Charoenkwan, Jatupol Srisomboon ,Prapaporn Suprasert , Chailert Phongnarisorn, Sitticha Siriaree,Chalong Cheewakriangkrai, Charuwan Tantipalakorn , Chumnan Kietpeerakool.

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Conventional radical hysterectomy for early cervical cancer has contributed a favorable outcome with 5 – year survival over 90% but is associated with typical long – term morbidity, i.e. bladder dysfunction, colorectal motility disorders and sexual dysfunction. Pelvic autonomic nerve injury during surgery is judged to be the main cause of these dysfunctions. Accordingly, more attempt has been made to minimize such morbidity after surgery, whilst the radicality of the parametrial resection is still maintained.

Nerve – sparing radical hysterectomy is the operation aimed to reduce pelvic organ dysfunctions by identifying and preserving the pelvic autonomic nerves during the parametrial resection. The operation can be summarized into 3 steps as follows :
Step 1 : Preservation of the hypogastric nerve and the proximal part of the inferior hypogastric plexus during the resection of the posterior parametrium or the sacrouterine and the rectouterine ligaments.
Step 2 : Preservation of the pelvic splanchnic nerves and the middle part of the inferior hypogastric plexus during the resection of the lateral parametrium or the cardinal ligaments.
Step 3 : Preservation of the distal part of the inferior hypogastric plexus during the resection of the anteri or parametrium or the vesicouterine ligaments.
Ten patients with early – stage cervical cancer undergoing nerve – sparing radical hysterectomy in Chiang Mai University Hospital will be presented. The main outcome including feasibility, safety, and efficacy focusing on the postoperative voiding function, as well as the obstacles will be discussed.

Presented at : 9th Annual Scientific Meeting of The Thai Gynecologic Cancer Society, Golden Sand Resort Hotel, Petchburi, Thailand, August 12 – 14, 2004.

MALIGNANT OVARIAN GERM CELL TUMOR (MOGCT) : EXPERIENCE IN CHIANG MAI UNIVERSITY HOSPITAL, THAILAND.

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Background & Aim : MOGCT are rare gynecologic tumors usually affecting young women. We conducted the retrospective study to evaluate the clinical feature and treatment outcome of this tumor.
Methods : The medical records of MOGCT patients receiving treatment at Chiang Mai University Hospital between 1998 and 2002 were reviewed.
Results : There were 461 ovarian cancer patients in the study period. Of these patients, 46 (9.9%) were MOGCT. The mean age was 23 years (7 – 39 years). The most common presenting symptom was abdominal mass (26) followed by abdominal enlargement (12), abdominal pain (7) and abnormal uterine bleeding (1). 22 patients (47.8%) underwent conservative surgery. The FIGO stage distribution was stage I (31), stage II (2), and stage III (11). Two patients presented with recurrence. 19 (41.3%) had immature teratoma, 11 (23.9%) had dysgerminoma, 11 (23.9%) had endodermal sinus tumor and 5 (10.9%) had mixed type. 30 (65.2%) were treated with bleomycin, etoposide and cisplatin (BEP). The overall response rate was 84.7% (complete response 80.4%, partial response 4.3%). 4 (8.7%) had progression of disease. 5 – year disease free survival was 89.6% Severe treatment related – complications were pulmonary fibrosis (2), septicemia (1), electrolyte imbalance (1) and bowel obstruction (2). Two patients died from toxicity of chemotherapy, 3 died from disease and 5 were lost to follow up.
Conclusion : The most common histology of MOGCT was immature teratoma. The outcome of this tumor was good although some had severe treatment – related complications.

Presented at : 10th Biennial International Gynecologic Cancer Society Meeting (IGCS), Edinburgh, Scotland October 3 – 7, 2004.

RUPTURED MATURE CYSTIC TERATOMAS MIMICKING ADVANCED STAGE OVARIAN CANCER : A REPORT OF 2 CASES STUDY.

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Spontaneous rupture of mature cystic teratoma is uncommon. Chronic rupture of teratomas may result in granulomatous peritonitis. In rare cases, the clinical presentation and the intraoperative findings may mimic those of advanced stage ovarian cancers. Two cases of ruptured mature cystic teratomas mimicking malignancy are reported in 50 – and 53 – year – old patients. Both presented with abdominal distension and weight loss. Elevation of serum CA – 125 (233 unit/ml) was detected in one case. Intraoperatively, nodular thickening of the omentum with marked peritoneal adhesion was observed in both cases. Ascites of 1500 ml was present in one case. Pathologic examination in both cases showed ovarian mature cystic teratomas with peritoneal granulomatous inflammations response to the released tumor content. Both patients were followed for 44 and 12 months and were free of symptoms without additional treatment other than surgery. Intraoperative pathologic consultation can help confirm the benign diagnosis and unnecessary major operation for malignancy can be avoided.

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TREATMENT RESULTS OF METHOTREXATE AND FOLINIC ACID AS PRIMARY CHEMOTHERAPY FOR NONMETASTATIC GESTATIONAL TROPHOBLASTIC NEOPLASIA.

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Objective : To evaluate the efficacy and toxicity of methotrexate and folinic acid (MTX–FA) chemotherapy in patients with nonmetastatic gestational trophoblastic neoplasia (NMGTN).
Patients and Methods : Between 1997 and 2003, a total of 67 patients with NMGTN received treatment at the Chiang Mai University Hospital. Of the 67 patients, 55 were initially treated with methotrexate 1.0 mg/kg intramuscularly (IM) on day 1, 3, 5 and 7 and folinic acid 0.1 mg/kg IM on day 2, 4, 6 and 8. Treatment courses were repeated every 14 days. Clinical characteristics and outcomes were analyzed.
Results : All 55 patients with NMGTN were cured. Of the 55 patients initially treated with MTX–FA, 49 (89%) achieved complete remission. Six (11%) patients developed methotrexate resistance, 3 were cured with actinomycin D, 1 were cured with 5–fluorouracil followed by etoposide, 2 required hystertectomy to attain remission. No serious toxicity was noted.
Conclusion : Methotrexate and folinic acid chemotherapy is highly effective and well – tolerated in treating patients with nonmetastatic gestational trophoblastic neoplasia.

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OUTCOMES OF ABANDONED RADICAL HYSTERECTOMY IN PATIENTS WITH STAGE IB – IIA CERVICAL CANCER FOUND TO HAVE POSITIVE NODES DURING THE OPERATION.

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The objective of this study was to evaluate the outcomes of stage IB – IIA cervical cancer patients whose radical hysterectomy (RH) was abandoned for positive pelvic nodes detected during the operation compared with those found to have positive nodes after the operation. Among 242 patients with planned RH and pelvic lymphadenectomy (RHPL) for stage IB – IIA cervical cancer, 23 (9.5%) had grossly positive nodes. RH was abandoned, complete pelvic lymphadenectomy was performed. Of these 23 patients, 22 received adjuvant chemoradiation, the remaining 1 received adjuvant radiation. Four patients with positive paraaortic nodes were additionally treated with extended field irradiation.

When compared with 35 patients whose positive nodes were detected after the operation, there were significant differences regarding number of positive nodes and number of patients receiving extended field irradiation. Complications in both groups were not significantly different, but the 2 – year disease – free survival was significantly lower in the abandoned RH group compared with that of the RHPL group (58.5% vs 93.5%, P = 0.01). In conclusion, the survival of stage IB – IIA cervical cancer patients whose RH was abandoned for grossly positive pelvic nodes was significantly worse than that of patients whose node metastasis was identified after the operation. This is because the abandoned RH group had worse prognostic factors.

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RADICAL HYSTERECTOMY FOR STAGE IIB CERVICAL CANCER : A REVIEW.

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Patients with stage IIB cervical cancer in some countries in Europe and Asia especially in Japan are usually treated with radical hysterectomy and pelvic lymphadenectomy. Extrauterine disease, i.e. nodal metastases, parametrial invasion and intraperitoneal spread can be readily identified. We present the literature review of radical hysterectomy in stage IIB cervical cancer by searching data since 1980 from MEDLINE and found that the parametrial involvement of patients in this stage was only 21 – 55%, the incidence of pelvic node metastases was about 35 – 45%, and 5 – year survival was between 55 – 77%. Lymph node metastases and the number of positive nodes were significant prognostic factors of patients in this stage.

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METASTATIC TUMORS TO THE OVARIES: A STUDY OF 170 CASES IN NORTHERN THAILAND.

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The cases of malignant ovarian tumors treated at Chiang Mai University hospital between 1992 and 2003 were histologically reviewed. The medical records, the radiologic findings, and the follow-up outcome in the cases suspicious or diagnostic of metastases were reviewed to confirm the diagnosis and to determine the primary sites. Metastatic tumors accounted for 30 % of malignant ovarian tumors. A total of 170 cases of metastatic tumors included 117 cases with non-gynecologic origins and 53 cases with gynecologic origins. Non-gynecologic metastatic tumors were from large intestine (31 %), stomach (14 %), intrahepatic bile duct (10 %), breast (9 %), extrahepatic bile duct/gallbladder (7 %), appendix (5 %), hematologic tumors (3 %), others (4 %), and unknown primary site (16 %). Metastatic gynecologic tumors were from cervix (53 %), corpus (34 %), fallopian tube (11 %), and gestational trophoblastic disease (2 %). The proportion of metastatic tumors to malignant ovarian tumors in northern Thailand was comparable to those of the Western or Japanese studies. However, the distribution of the primary sites was different and was correlated with the cancer incidence in Thai women. The majority of mucin-producing adenocarcinomas involving the ovaries were metastatic tumors.

Int J Gynecol Cancer 2006 (in press)

CLEAR CELL ADENOCARCINOMA OF THE FEMALE GENITAL TRACT : PRESENCE OF HYALINE STROMA AND TIGROID BACKGROUND IN VARIOUS TYPES OF CYTOLOGIC SPECIMENS

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Hyaline basement membrane-like stromal material and tigroid background are distinctive cytologic features in Diff-Quik- or Giemsa-stained smears of clear cell adenocarcinoma (CCA) of the female genital tract. However, it is uncertain how often these findings are present in different types of cytologic specimens, and which type of preparation is optimal for making this diagnosis. We therefore reviewed the cytologic features of CCA in 3 types of specimens including scrape cytology (15 specimens), fine needle aspiration (FNA) (7 specimens), and peritoneal cytology (15 specimens), with emphasis on the findings in Diff-Quik-stained smears. The cell morphology in scrape cytology and FNA was comparable, whereas in peritoneal cytology, the cytoplasm was better preserved. Most tumor cells had fragile cytoplasm containing variable amounts of fine vacuoles, and round nuclei with distinct or prominent nucleoli. Hyaline stroma was present in 93% of scrape cytology specimens, 71% of FNA specimens, and 80% of peritoneal cytology specimens. Tigroid background was observed in 47% of scrape cytology specimens, 43% of FNA specimens, but in none of the peritoneal cytology specimens. Formation of a tigroid background may be prevented by the abundant fluid content in this type of cytologic specimen. Hyaline stroma and tigroid background were uncommonly seen in scrape smears from other types of primary ovarian tumors, mainly juvenile granulosa cell tumor and yolk sac tumor. However, the additional presence of papillary structures allows CCA to be readily distinguished from these other tumours. Scrape cytology would be the best method to choose for the intraoperative cytologic diagnosis of CCA.

Diagn Cytopathol 2005 ; 32: 336-40.

YOLK SAC TUMOR OF THE VULVA: A CASE REPORT WITH LONG-TERM DISEASE-FREE SURVIVAL

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Background. Yolk sac tumor (YST) of the vulva is extremely rare. Seven cases of vulvar YST have been reported to the literature. Due to the rarity of tumors, the appropriate choice of treatment may remain unclear.
Case. A 30-year-old woman presented with a 3.5-cm right labial mass. Excisional biopsy showed YST with predominant solid pattern. Three weeks after excision, right inguinal lymph node biopsy revealed metastatic tumor. The serum alpha-fetoprotein (AFP) was not elevated. Cisplatin-based chemotherapy was administered, followed by pelvic and groin irradiation. The patient was free of disease 90 months after the diagnosis.
Conclusion. Local exicision of tumor with adjuvant cisplatin-based chemotherapy can be justified for vulvar YST. Inguinal lymphadenectomy is recommended because metastasis may occur early. Adjuvant radiation therapy may help to control the disease. Tumor size of 5 cm or less may be a favorable prognostic factor. Serum AFP level may not be a sensitive marker for follow-up of vulvar YST.

Gynecol Oncol 2005 ; 97: 238-242.

ADVERSE AFFECTS OF PACLITAXEL AND CARBOPLATIN COMBINATION CHEMOTHERAPY IN EPITHELIAL GYNECOLOGIC CANCER.

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Objective : To evaluate the adverse affects of paclitaxel and carboplatin combination chemotherapy.
Subjects : Patients with epithelial cancer of the ovary, fallopian tube and peritoneum treated with paclitaxel and carboplatin combination chemotherapy at Chiang Mai University Hospital between August 2003 and August 2004.
Results : Of 224 evaluable cycles in 63 patients treated with paclitaxel (175 mg/m^2) and carboplatin (AUC 5), grade 3 and 4 neutropenia occurred in 37.1% or 41.3% of patients. 4.8% of patients experienced febrile neutropenia. Grade 3 and 4 leukopenia occurred in 8.6% of courses and 12.6% of patients. Grade 3 anemia occurred in 5.2% of courses and 9.5% of patients. Grade 3 thrombocytopenia occurred in 2.8% of courses and 9.6% of patients. The nonhematologic adverse affects were rare, however some adverse events may be potentially life threatening.
Conclusion : Adverse affects of paclitaxel and carboplatin combination chemotherapy are acceptable and manageable in the majority of patients.

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TOTAL LAPAROSCOPIC HYSTERECTOMY IN CERVICAL CANCER STAGE IA1 OR PERSISTENT HIGH GRADE SQUAMOUS INTRAEPITHELIAL LESIONS AFTER PREVIOUS DIAGNOSTIC CONIZATION.

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Objective : To describe preliminary experience on total laparoscopic hysterectomy (TLH) in the patients with cervical cancer stage IA1 or persistent high grade squamous intraepithelial lesion (HSIL), who underwent diagnostic cervical conization.

Design : A university teaching hospital.

Method and subjects : From June 2003 to September 2004, twenty patients with history of at least one previous diagnostic conization were recruited for TLH in our hospital. Of them, 16 has stage IA1 cervical cancer and the remaining 4 had persistent HSIL.

Results : TLH was successfully performed in all cases without conversion. The mean age of the patients was 46,5 $\pm$ 8.8 years (range 35-63). The mean body mass index was 23.8 $\pm$ 4.0 (range 18.5 – 33.7). the mean operation time was 271.4 $\pm$ 62.8 minutes (range 153-450). The mean uterine weight was 81.8 $\pm$ 42.1 grams. (range 20-190). The average time of postoperative hospital stay was 3 days. The mean pre- and post-operative hemoglobin were 12.4 g% and 10.3 g% respectively. Major complications occurred in two patients, cystotomy requiring laparoscopic repair in one case and ureteral injury requiring subsequent laparotomy in the other. Notably, these complications occurred in the first 4 cases of our series, at the beginning of our learning curve. However, both were healthy and had no significant morbidity at one-year of follow-up.

Conclusion : Based on this series, TLH for cervical carcinoma stage IA1 or persistent HSIL in case of previous conization may probably be safe and can be performed as an alternative to conventional laparotomy.

Presented at : The 14th Annual Congress of the International Society for Gynecologic Endoscopy, Hilton London Metropole, London, United Kingdom, April 3-6, 2005.

SURVIVAL AND PROGNOSTIC FACTORS FOR PATIENTS WITH EARLY-STAGE CERVICAL CANCER TREATED WITH RADICAL SURGERY : STAGE IB1 VS. IB2.

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Objective : To compare the clinical outcome of stage IB1 vs. stage IB2 cervical cancer patients treated with radical hysterectomy and pelvic lymphadenectomy (RHPL).

Methods : Patients with stage IB cervical cancer undergoing RHPL at Chiang Mai University Hospital between January 1998 and December 2002 were evaluated for survival and recurrence. Clinicopathological variables were analyzed to identify the prognostic factors affecting survival and recurrence.

Results : During the study period, RHPL was performed on 432 stage IB1 and 14 stage IB2 patients. The incidence of positive pelvic nodes were 17.8% and 28.6% for stage IB1 and IB2 respectively ($p = 0.29$). Incidence of parametrial involvement were similar between the stages IB1 and IB2 (10.9% and 14.3%) respectively, $p = 0.66$). Patients with stage IB2 received adjuvant radiation more frequently than IB1 patients (64.3% vs 35.9%, $p = 0.03$). Overall, 19/442 patients (4.3%) developed recurrence, 4% for stage IB1, and 14.3% for stage IB2 ($p = 0.12$). With a median follow-up of 37.5 months, the 3-year disease-free survivals were 96% and 80% for stage IB1 and stage IB2, respectively ($p = 0.03$).

Conclusion : Patients with stage IB1 cervical cancer appear to have significantly better outcome than those with stage IB2.

Presented at : The 57th Annual Congress of The Japan Society of Obstetrics and Gynecology, Kyoto International Conference Hall, Kyoto, Japan, April 2-5, 2005.

OUTCOME OF INTERMEDIATE RISK FACTORS IN EARLY STAGE CERVICAL CANCER.

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Objective : To evaluate the clinical outcome of cervical cancer patients who had intermediate risk factor(s) after treatment with radical hysterectomy.

Design : Retrospective study

Setting : Division of Gynecologic Oncology, Department of OB & GYN, Faculty of Medicine, Chiang Mai University.

Material & Methods : From January 1999 to January 2004, the medical records of cervical cancer patients who had intermediate risk factors defined as positive lymph-vascular space invasion (LVSI) and/or deep stromal invasion (DSI) after treatment with radical hysterectomy and pelvic lymphadenectomy (RHPL) were reviewed. Patients who had LVSI more than 10 spaces per HPF with DSI less than 3mm. from cervical serosa received adjuvant chemoradiation. While patients who had LVSI > 10 spaces per HPF alone were treated with adjuvant chemotherapy (cisplatin).

Results : There were 154 patients with intermediate risk factors in the study period. The mean age was 43 years (28-67 years). Most of them were in stage IB1 (120 or 77.9%). The most common histology was squamous cell carcinoma (107 or 69.5%). The distribution of patients by histologic grade (G) was 40 in G1, 73 in G2 and 20 in G3, 21 were unclassified grade. The mean number of nodes removed was 28 nodes (11-70). 109 (70.8%) patients had positive LVSI. Of these patients, 38 had LVSI > 10 spaces. 92 patients (60%) had DSI. The treatment consisted of RHPL alone (90 or 58.4%), RHPL + chemoradiation (23 or 14.9%), RHPL + radiation (12 or 7.8%) and RHPL + chemotherapy (29 or 18.8%). The 5-year disease free survival (DFS) was 91.8%. Eleven patients (7.1%) developed recurrence 8-37 months after completion of treatment. Three patients had lung metastases, 2 after RHPL alone, the remaining 1 after adjuvant chemoradiation. One patient developed liver metastasis after adjuvant chemotherapy. Seven patients developed pelvic recurrence, 3 after RHPL alone, 3 after adjuvant chemotherapy and 1 after adjuvant radiation. Neither LVSI nor DSI was the significant prognostic factor when analyzed by univariate and multivariate analysis.

Conclusion : The outcome of early-stage node-negative cervical cancer who had LVSI and/or DSI after RHPL was quite good. Neither of them was the significant prognostic factors.

Presented at : The 57th Annual Congress of The Japan Society of Obstetrics and Gynecology, Kyoto International Conference Hall, Kyoto, Japan, April 2-4, 2005.

CONCURRENT CISPLATIN-BASED CHEMORADIATION AND ADJUVANT HYSTERECTOMY FOR BULKY STAGE IB-IIA CERVICAL CANCER.

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Objective : To evaluate the outcomes and adverse effects of concurrent cisplatin-based chemoradiation and adjuvant hysterectomy for bulky stage IB-IIA cervical cancer.

Methods : All eligible, thirty-four patients with bulky stage IB-IIA cervical cancer were assigned to receive weekly cisplatin 40 mg/m^2 for 6 cycles concurrently with radiation followed by extrafascial hysterectomy 6 weeks after completion of radiation.

Results : Estimated 5-year progression-free and disease-free survival rates of 80% were observed after a median follow-up of 42 months. The overall recurrent rate was 18%. Grade 3 neutropenia and anemia were noted in only 5.9% and 2.9%, respectively. All acute toxicities were transient and manageable. There were no treatment-related deaths or late toxicities.

Conclusion : For appropriately selected patients with bulky stage IB-IIA cervical cancer, concurrent cisplatin-based chemoradiation followed by adjuvant hysterectomy offers an effective treatment option with acceptable toxicity.

Presented at : The 57th Annual Congress of The Japan Society of Obstetrics and Gynecology, Kyoto International Conference Hall, Kyoto, Japan, April 2-4, 2005.

PRIMARY CARCINOMA OF THE FALLOPIAN TUBE : A CLINICOPATHOLOGIC ANALYSIS OF 27 PATIENTS.

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Objectives : To analyze the clinicopathologic features of women with primary fallopian tube carcinoma.

Design : Descriptive cross sectional study.

Material and Method : Twenty-eight women diagnosed with primary fallopian tube carcinoma treated at Chiang Mai University Hospital between January 1997 and December 2004.

Results : During the study period, the primary fallopian tube carcinoma accounted for 0.48% of all gynecologic malignancies. Of the 28 patients, one was excluded for unavailable medical records. Mean age at diagnosis was 53 years (range, 38-76 years). Seventeen (63.0%) were menopausal women. The most common clinical presentation was pelvic mass (55%), followed by abnormal vaginal bleeding (18.5%). Hydrops tubae profluens was present in three (11.1%) women. The rare presenting symptoms including pelvic peritonitis and abnormal glandular cells on cervicovaginal smear were noted in one (3.7%) woman of each category. In all women, primary fallopian tube carcinoma could not be diagnosed preoperatively. During the operation, an abnormal tubal lesion was suspected in only eleven (40.7%) women. Histology were serous adenocarcinoma (70.4%), endometrioid adenocarcinoma (22.2%), undifferentiated adenocarcinoma (3.7%) and carcinosarcoma (3.7%). As opposed to epithelial ovarian cancer, the majority of women in the present study were in the early stage of the disease.

Conclusion : Primary fallopian tube carcinoma is a rare gynecologic malignancy that has various and nonspecific presentations. Definite diagnosis is usually made postoperatively. This malignancy should be considered in differential diagnosis of peri- and postmenopausal women who present with complex adnexal mass, unexplained uterine bleeding, abnormal glandular cells on cervicovaginal smear and complicated pelvic inflammatory disease.

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EXTENT OF LYMPHOVASCULAR SPACE INVASION AND RISK OF PELVIC LYMPH NODE METASTASES IN STAGE IB1 CERVICAL CANCER.

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Objective : To evaluate whether the extent of lymphovascular space invasion (LVSI) is a risk factor for pelvic lymph node metastases in stage IB1 cervical cancer.

Material and Method : The clinicopathological data of 397 patients with stage IB1 cervical cancer undergoing radical hysterectomy and pelvic lymhadenectomy (RHPL) at Chiang Mai University Hospital between January 1998 and December 2002 were analyzed. The histology, tumor grade, depth of stromal invasion, uterine corpus involvement, parametrial invasion and LVSI were analyzed for their association with pelvic node metastases. The extent of LVSI was classified as negative, minimal (< 10 LVSI / cervical specimen), and extensive ($\geq$ 10 LVSI / cervical specimen).

Results : Of the 397 patients, 146 (36.8%) had tumors containing LVSI, 82 (20.7%) and 64 (16.1%) had minimal and extensive LVSI, respectively. Fifty nine (14.9%) patients had pelvic node metastases. Using multivariable analysis, LVSI ($p < 0.001$), depth of stromal invasion ($p < 0.001$), tumor grade ($p < 0.001$), and parametrial invasion ($p < 0.001$) were significant predictors of pelvic node metastases. The extent of LVSI either minimal or extensive degree significantly influenced pelvic node metastases.

Conclusion : The presence of LVSI especially extensive involvement was significantly associated with the risk of pelvic node metastases in stage IB1 cervical cancer.

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RADICAL SURGERY FOR T1 AND T2 SQUAMOUS CELL CARCINOMA OF THE VULVA THROUGH SEPARATE INCISIONS.

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Objective : The aim of the study was to retrospectively evaluate treatment results in patients with T1 and T2 vulvar carcinoma.

Material and Method : The medical records of 46 patients with T1 and T2 SCC of the vulva undergoing radical excision of the tumor and groin node dissection at Chiang Mai University Hospital between January 1998 and December 2004 were reviewed. The tumor size, histologic grade, nodal status, lymph-vascular space invasion, lesion location, surgical marginal status, complications, recurrence and survival were analyzed.

Results : Mean age of the 46 patients (T1 = 15, T2 = 31) was 59 years with a range of 34-84 years. The incidence of lymph node metastases for T1 lesions was 13% compared to 35% for T2 lesions. Twenty nine patients (63%) experienced surgical complications, the most common one was lymphedema (16) while wound breakdown was noted in only 1 patient. With a median follow-up of 15 months, 14 patients (30%) developed recurrence, 3 (20%) and 11 (35%) in patients with T1 and T2 lesions respectively. The overall 5-year disease-free survival and 5-year survival were 37% and 40%, respectively. The 5-year survival of patients with T1 lesion was significantly higher than that of patients with T2 lesion (64% vs 31 %, P = 0.04). Patients with negative nodes had significantly better survival than those with positive nodes (56% vs 18%, P = 0.02). In multivariable analysis, only the status of groin node remained an independent prognostic factor for survival.

Conclusion : Radical excision and groin node dissection through separate incision for T1 and T2 squamous cell carcinoma of the vulva in this study has a less favorable survival outcome compared with the literature.

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RADIOLOGIC FEATURES AND TREATMENT OUTCOMES OF PULMONARY METASTASIS IN GESTATIONAL TROPHOBLASTIC NEOPLASIA

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Objective : To evaluate the radiologic patterns and treatment outcome of pulmonary metastasis in patients with gestational trophoblastic tumor (GTT).

Material and Method : The medical records and chest films of GTT patients treated at Chiang Mai University Hospital between January 1998 and June 2003 were reviewed.

Results : There were 85 GTT-patients in the study period. 32 cases (37.6%) had pulmonary metastasis diagnosed with chest X-rays. The most common radiologic pattern was well defined nodule. The radiologic features of patients who had lung metastases alone were not significantly different from those who had associated metastases in other organs. 27 patients (84.3%) received multiple chemotherapy and 6 required more than one regimen. The mean number of chemotherapy was 7 cycles (range 3-23). Adjuvant surgery consisted of hysterectomy (11), salpingo-oophorectomy (1), thoracotomy (2), and craniotomy (1). Four patients received whole brain irradiation for brain metastases. Among 10 patients with lung metastasis alone, 8 (80%) attained complete remission, the remaining 2 patients were lost to follow-up. Among 22 patients with associated multiple organ metastases, 16 (72.7%) had complete remission, 2 died from diseases, 4 were lost to follow-up.

Conclusion : The most common radiologic pattern of pulmonary metastasis in GTT patients was well-defined multiple lung nodules. The radiologic features of patients who had lung metastases alone were not significantly different from those who developed metastases in other organs.

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A RARE FEMALE GENITAL TRACT TUMOR : BENIGN GRANULAR CELL TUMOR OF VULVA : CASE REPORT AND REVIEW OF THE LITERATURE

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Background : The granular cell tumor (GCT) of vulva is a rare female genital tract tumor.

Case : A 59-year-old female was incidentally noted to have a 1-cm sized lump in her left labium mass that subsequently increased in size to approximately 4 cm. The mass was totally excised under general anesthesia. Her postoperative follow-up was uneventful. Histologic examination of the tumor showed sheets and clusters of infiltrating tumor cells with morphologic features consistent with granular cell tumor.

Conclusion : Although benign and slow growing, it has a tendency for recurrence and can cause morbidity and mortality when presenting with multicentric or multiple organ involvement due to the lack of effective systemic therapy. Therefore, clinicians and pathologists should be aware of its clinical and histopathologic features.

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WEEKLY VERSUS THREE-WEEKLY CISPLATIN AS AN ADJUNCT TO RADIATION THERAPY IN HIGH-RISK STAGE I-IIA CERVICAL CANCER AFTER SURGERY : A RANDOMIZED COMPARISON OF TREATMENT COMPLIANCE.

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Objective : To compare weekly and three-weekly cisplatin as an adjunct to radiation therapy in high-risk early-stage cervical cancer after surgery with regard to treatment compliance.

Material and Method : From June 1st, 2003 to February 29th 2004, we performed a randomized trial of radiotherapy in combination with two concurrent chemotherapy regimens, weekly or three-weekly cisplatin in patients with high-risk cervical cancer FIGO stage I-IIA after surgery. Women with primary invasive squamous-cell carcinoma adenocarcinoma or adenosquamous carcinoma of the cervix were enrolled. The patients also had to have an absolute neutrophil count of at least 1,500 cells per cubic millimeter, a platelet count of at least 75,000 cells per cubic millimeter, a creatinine clearance higher than 40 milliliter per minute, and adequate hepatic function. All patients received external-beam radiotherapy according to a strict protocol. Patients were randomly assigned to receive one of two chemotherapy regimens : 75 mg per square meter of cisplatin on days 1.22, 43 and 64 or every three weeks for 4 cycles (group 1) or 40 mg per square meter of cisplatin per week for six cycles (group 2).

Results : The analysis included 40 women. First group that received three-weekly cisplatin had a higher rate of incomplete and delayed treatments than the second group that received weekly cisplatin ($p < 0.001$) and $P = 0.0236$ respectively). The relative risks of delayed courses were 2.06 (95 percent confidence interval. 1.15 to 3.68) for group 1. as compared with group 2. The toxicity-related incomplete treatment rate and G-CSF doses used were significantly higher in group 1 than in group 2.

Conclusion : Concurrent chemoradiation with weekly cisplatin regimen has more complete treatment rate and less delayed courses than that with three-weekly cisplatin among women with high-risk cervical cancer after surgery.

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ADVERSE AFFECTS OF PACLITAXEL AND CARBOPLATIN COMBINATION CHEMOTHERAPY IN EPITHELIAL GYNECOLOGIC CANCER

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Objective: To evaluate the adverse affects of paclitaxel and carboplatin combination chemotherapy.

Subjects: Patients with epithelial cancer of the ovary, fallopian tube and peritoneum treated with paclitaxel and carboplatin combination chemotherapy at Chiang Mai University Hospital between August 2003 and August 2004.

Results: Of 224 evaluable cycles in 63 patients treated with paclitaxel (175 mg/m^2) and carboplatin (AUC 5), grade3 and 4 neutropenia occurred in 37.1% or 41.3%of patients. 4.8% of patients experienced febrile neutropenia. Grade 3 and 4 leukopenia occurred in 8.6% of courses and 12.6% of patients. Grade 3 anemia occurred in 5.2% of courses and 9.5% of patients. Grade 3 thrombocytopenia occurred in 2.8% of courses and 9.6% of patients. The nonhematologic adverse affects were rare, however some adverse events may be potentially life threatening.

Conclusion: Adverse affects of paclitaxel and carboplatin combination chemotherapy are acceptable and manageable in the majority of patients.

Key word : Adverse affects, Paclitaxel, Carboplatin, Epithelial gynecologic cancer.

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COMPLICATIONS OF LOOP ELECTROSURGICAL EXCISION PROCEDURE FOR CERVICAL NEOPLASIA: A PROSPECTIVE STUDY

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Objectives: To evaluate the complications following loop electrosurgical excision procedure (LEEP) for diagnosis and treatment of cervical neoplasia.

Material and Method: Patients with abnormal cervical cytology who underwent LEEP at Chiang Mai University Hospital between November 2004 and June 2005 were prospectively evaluated for complications.

Results: During the study periods, 206 patients underwent cervical loop excision for a total of 226 procedures. The mean age of the patients was 41 years (range, 26 -72 years). Sixty (29.1%) women were menopausal. The most common abnormal cervical cytology was HSIL (56.3%) followed by LSIL (12.1%). Twenty-five (11.2%) patients received re-excision for positive margin after the first procedure. Intraoperative hemorrhage occurred in 7.9% of the procedures. Early and late postoperative hemorrhage occurred in 0.4% and 2.6% of the procedures, respectively. Eight (3.5%) had postoperative infections and were cured with oral antibiotics. By logistic regression analysis, there was no significant correlation between age, menopausal status, HIV status, re-excision procedure, final histopathology, cone dimension and the complications of LEEP.

Conclusion: Loop electrosurgical excision procedure is safe for evaluation and treatment of cervical neoplasia with an acceptable and manageable surgical morbidity.

Keywords : Loop electrosurgical excision procedure, complication, cervical neoplasia.

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OUTCOMES OF LOOP ELECTROSURGICAL EXCISION PROCEDURE FOR CERVICAL NEOPLASIA IN HIV-INFECTED WOMEN

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The objective of this study was to evaluate the treatment outcomes and complications in HIV-infected women undergoing loop electrosurgical excision procedure (LEEP) for cervical neoplasia. The medical record of 60 evaluable HIV-infected women who had abnormal Pap smear and underwent LEEP following colposcopy at Chiang Mai University Hospital between May 1998 and June 2004 were reviewed. Thirty-one (51.7%) had associated genital infection at screening. Twenty-five (41.7%) had opportunistic infection but only 18(30.0%) were treated with antiretroviral therapy. The most common abnormal Pap smear was HSIL (46.7%), followed by LSIL (40.0%). Forty (66.7%) women had clear surgical margins after LEEP. Only 1(1.7%) woman had severe intraoperative hemorrhage. Early and late postoperative hemorrhage were noted in 3 (5%) women of each period. Localized infection of the cervix was detected in 7 (11.7%) women. Two (3.3%) women developed cervical stenosis at 6 month after LEEP. There was no significant difference in overall complications between HIV-infected women and the control group (P=0.24). Among 60 HIV-infected women, no statistical difference in the rate of margins involvement (P=1.00) and complications (P=0.85) could be demonstrated between HIV-infected women who received antiretroviral therapy and those who did not. Disease free rate at 6 and 12 months were 97.1% and 88%, respectively. These data demonstrated that LEEP appears to be safe and effective in HIV-infected women.

Key words: outcomes, loop electrosurgical excision procedure, HIV-infected women, complications, cervical neoplasia

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CLINICOPATHOLOGIC PREDICTORS OF INCOMPLETE EXCISION AFTER LOOP ELECTROSURGICAL EXCISION PROCEDURE FOR CERVICAL NEOPLASIA

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The aim of this study was to identify the factors affecting incomplete excision after loop electrosurgical excision procedure (LEEP) for evaluation and treatment of cervical neoplasia. Patients with abnormal cervical cytology who underwent colposcopy and LEEP at Chiang Mai University Hospital between October 2004 and July 2005, were retrospectively evaluated. During the study period, 201 patients were eligible for analysis. All cone margin involvement was observed in 44% of the patients (95% CI, 37.3-51.4). Multivariate analysis revealed that invasive cancer on cytology (adjusted odds ratio [aOR] =3.05, 95% confidence interval [CI] =1.03 to 9.00; P=0.02), invasive cancer on LEEP histopatholgy (aOR=9.73, 95%CI =3.95 to 23.9; P<0.001), and cone length of less than 10 mm (aOR =1.95, 95%CI =1.04 to 3.66; P =0.03) were significant predictors for any cone margin involvement. For endocervical margin involvement, postmenopausal status and cone length of less than 10 mm were significant predictors of incomplete excision. As opposed to endocervical margin involvement, postmenopausal status was significantly associated with a decreased risk of ectocervical margin involvement. Invasive cancer on histopathology was a significant predictor of both ecto- and endocervical margin involvement. In Conclusions, Invasive cancer either on cytology or LEEP specimens and cone length of less than 10 mm are significant predictors of incomplete excision.

Keywords: Loop electrosurgical excision procedure, cone margin, cervical neoplasia, multivariate analysis.

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ACCURACY OF VISUAL INSPECTION WITH ACETIC ACID (VIA) TEST IN PREDICTING ASSOCIATED VAGINAL NEOPLASIA IN PATIENTS WITH EARLY STAGE CERVICAL CANCER UNDERGOING RADICAL HYSTERECTOMY

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Background: Associated vaginal neoplasia is found in about 8-10% of patients with early stage cervical cancer causing positive vaginal margins after radical hysterectomy and needs adjuvant brachytherapy. Vaginal neoplasia usually stains white after application of acetic acid. This study used the VIA test to identify concomitant vaginal neoplasia in the hope that it may reduce positive vaginal margins.

Objective: To evaluate the accuracy of VIA test in predicting associated vaginal neoplasia in patients with early stage cervical cancer undergoing radical hysterectomy.

Methods: Early stage cervical cancer patients with planned radical hysterectomy February 2004 and May 2005 in Chiang Mai University Hospital were tested with 5% acetic acid on the vagina and cervix during the preoperative pelvic examination. Patients with abandoned radical hysterectomy patients were excluded from the study. Positive VIA test was defined as acetowhite vaginal epithelium. The VIA test and pathology of the resected vagina were analyzed.

Result: There were 70 patients in the study period. 3 patients were excluded for abandoned radical hysterectomy. Of the 67 patients, 9 had positive VIA test but only 1 had concomitant vaginal neoplasia. The sensitivity, specificity, positive and negative predictive values of the VIA testing were 11.1%, 84.5, 10% and 85.9% respectively. 4 patients had positive vaginal margins for vaginal neoplasia.

Conclusion: VIA test is not sensitive in detecting associated vaginal neoplasia in patients with early-stage cervical cancer.

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