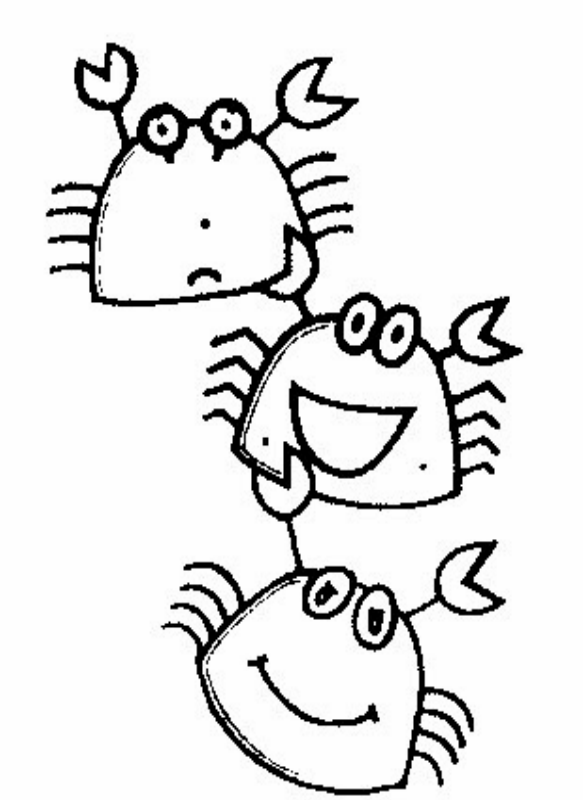
ANNUAL REPORT
ON
GYNECOLOGIC ONCOLOGY
2008



DIVISION OF GYNECOLOGIC ONCOLOGY

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

FACULTY OF MEDICINE, CHIANG MAI UNIVERSITY

CHIANG MAI, THAILAND

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รายงานประจำปี 2551

หน่วยมะเร็งวิทยานรีเวช

ภาควิชาสูติศาสตร์และนรีเวชวิทยา

คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่

อนุสาขามะเร็งวิทยานรีเวช

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คุณทศพล ไชยน้อย

PREFACE

This Annual Report on Gynecologic Oncology 2008 was carried out with great contribution and hardworking from Assoc. Prof. Prapaporn Suprasert, Chief of the Gynecologic Oncology Division, Khun Narisa, Khun Sukanya, our new research nurses, Khun Tosapol, our research assistant, and our colleagues in the OB & GYN Department. This report also presents the accumulated data of our 12-year work in the gynecologic oncology.Over 1,500 radical hysterectomy operations, over 2,600 LEEPs and 70 laparoscopic radical hysterectomy have been performed during our 12-year experience. The 10-year recurrence-free survival of our cervical cancer patients treated with radical surgery was over 90%.

In my view, the Division has made satisfactory progression and improvement in the service, academic activity, and research in this field. Since establishment of the Gynecologic Oncology Division in 1997, over 80 original papers have been published in the peer-reviewed journals. Many staff were invited as guest speakers in the national and international scientific meetings. Seven, 6, and 3 papers were presented in the 23rd Annual Scientific Meeting of the RTCOG, the 12th Biennial International Gynecologic Cancer Society (IGCS) Meeting, and the 60th Annual Congress of the Japan Society of the Obstetrics and Gynecologic, respectively in 2008.

I sincerely appreciate Dr. Prapaporn and her colleagues for their contribution to the Gynecologic Oncology Division of Chiang Mai University Hospital.

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PREFACE

This Annual Report 2008 is the twelfth volume of our work in gynecologic oncology. We served about 759 gynecologic cancer patients in 2008 which was slightly higher than those in the last year. Cervical cancer is still the leading cancer followed by ovarian and uterine cancers.

About 137 Wertheim operations were performed in our hospital. Of these, 16 cases were carried out via laparoscopic approach. This year the number of uterine and vulva cancers were greater than before. Thirteen original studies were published in the peer-reviewed journals in 2008. Our staffs were invited as guest speakers in both local and international gynecologic oncology conferences.

This report is divided into 2 sections. The first section provides the statistics of all gynecologic cancer patients in the year 2008 with accumulated data since 1997. Section II presents the infrastructure, diagnostic procedures and operations in gynecologic cancer, abstracts of the publications and presentation in 2008.

I gratefully acknowledge the contributions of the following individuals without whom this Annual Report could not have been possible. Dr. Chumnan Kietpeerakool who collected the research data, my research team, Khun Narisa Sribanditmongkol, Khun Sukanya Yanunto and Khun Tosapol Chainoy who collected and analyzed the patients 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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CONTENT

TABLE 1 : Gynecologic Oncology Registry :Chiang Mai University 1997-2008

Site	1997 Number (%)	1998 Number (%)	1999 Number (%)	2000 Number (%)	2001 Number (%)	2002 Number (%)	2003 Number (%)	2004 Number (%)	2005 Number (%)	2006 Number (%)	2007 Number (%)	2008 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)	488 (66.8)	480 (63.6)	473 (63.2)
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)	114 (15.6)	132 (17.5)	115 (15.2)
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)	84 (11.5)	91 (12.0)	117 (15.4)
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)	15 (2.1)	11 (1.5)	21 (2.8)
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)	5 (0.7)	6 (0.7)	7 (0.9)
FT	-	2 (0.3)	3 (0.5)	5 (0.7)	3 (0.4)	4 (0.5)	6 (0.7)	5 (0.6)	4 (0.5)	7 (1.0)	7 (0.9)	4 (0.5)
PPA	-	-	2 (0.3)	1 (0.1)	-	2 (0.3)	7 (0.8)	3 (0.4)	4 (0.5)	6 (0.8)	11 (1.5)	7 (0.9)
GTT	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)	12 (1.6)	17 (2.3)	15 (2.0)
Total	**727 (100)**	**662 (100)**	**660 (100)**	**704 (100)**	**706 (100)**	**748 (100)**	**870 (100)**	**795 (100)**	**791 (100)**	**731 (100)**	**755 (100)**	**759 (100)**

PPA = Primary Peritoneal Adenocarcinoma FT = Fallopian Tube GTT = Gestational Trophoblastic Tumors

Gynecologic Oncology Multiple Primary Cancers : Chiang Mai University 1999-2008

Multiple Primary Cancers	1999 Number	2000 Number	2001 Number	2002 Number	2003 Number	2004 Number	2005 Number	2006 Number	2007 Number	2008 Number
Ovarian and Cervical Cancer	1	1	2	2	1	1	1	-	-	1
Ovarian and Corpus Cancer	4	8	6	7	-	5	13	5	4	8
Corpus and Cervical Cancer	1	-	-	1	-	-	1	-	1	-
Corpus and Fallopian Tube Cancer	-	-	-	1	-	-	-	1	-	-
Corpus and Peritoneal Cancer	-	-	-	-	1	1	1	-	-	-
Cervical and Fallopian Tube Cancer	-	-	-	-	-	1	-	-	-	-
Ovarian and Fallopian Tube	-	-	-	-	-	-	-	-	1	-
Ovarian and Fallopian Tube and Corpus Cancer	-	-	-	-	-	-	-	1	1	-

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	2006 Number	2007 Number	2008 Number
Surgery for Ovarian & Tubal CA.	64	43	64	70	45	69	88	79	80	111	89	95
Surgery for Corpus CA.	33	28	26	36	43	39	47	60	75	53	80	106
Surgery for Vulvar CA.	10	14	5	19	12	14	21	19	14	12	8	21
Radical hysterectomy	55	77	113	120	116	135	150	151	149	143	120	121
Laparoscopic Radical Hysterectomy	-	-	-	-	-	-	-	4	18	21	11	16
Radical Parametrectomy	2	2	1	1	1	3	4	1	1	2	1	-
Laparoscopic Radical Parametrectomy	-	-	-	-	-	-	-	1	1	3	-	-
Simple Hysterectomy	118	110	155	182	121	89	43	35	52	55	47	31
Total Laparoscopic Hysterectomy	-	-	-	-	-	-	10	11	9	4	4	2
Conization	66	65	79	13	14	22	16	9	10	5	15	6
LEEP	61	35	166	207	194	221	380	276	261	309	317	235
Cryosurgery	20	15	18	8	4	3	1	-	2	-	-	-
Colposcopy	227	235	463	371	369	306	357	399	499	627	519	556

SECTION I

- **Gynecologic Oncology Registry**
  Chiang Mai University : 2008
- **Operations and Procedures**
  in Gynecologic Oncology
- **Gynecologic Oncology Multiple Primaries Cancer**
- **Organ Specific Gynecologic Cancer**
  - Cancer of The Cervix
  - Cancer of The Ovary
  - Cancer of The Uterine Corpus
  - Cancer of The Vulva
  - Cancer of The Vagina
  - Cancer of The Fallopian Tube
  - Cancer of The Peritoneum
  - Gestational Trophoblastic Disease

Cancer of The Cervix

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

TABLE 2 : Cancer of The Cervix : Age Distribution.

Age	Number	Percent
20-30	8	1.7
31-40	60	12.7
41-50	180	38.1
51-60	136	28.8
61-70	52	11.0
71-80	34	7.2
81-90	3	0.6
Total	**473**	**100**

Minimum age 22 years, Maximum age 90 years
Mean age 51.36±11.42 year

TABLE 3 : Cancer of The Cervix : Parity Distribution.

Parity	Number	Percent
0	29	6.1
1	79	16.7
2	207	43.8
3	63	13.3
4	46	9.7
5	25	5.3
6	7	1.5
7	6	1.3
8	6	1.3
9	4	0.8
10	1	0.2
Total	**473**	**100.0**

TABLE 4 : Cancer of The Cervix: Stage Distribution.

Stage	Number	Percent
I	199	42.1
II	142	30.0
III	104	21.9
IV	22	4.6
Recurrent	6	1.3
Total	**473**	**100.0**

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

	Stage	Number	Percent
I	Ia	2	0.4
	Ia1	35	7.4
	Ia2	8	1.7
	Ib	16	3.4
	Ib1	109	23.0
	Ib2	29	6.1
II	IIa	30	6.3
	IIb	112	23.7
III	IIIa	4	0.8
	IIIb	100	21.1
IV	IVA	11	2.3
	IVb	11	2.3
Recurrent		6	1.3
Total		**473**	**100.0**

Table 6 : HIV Status in Cervical Cancer Patients dividing by Stage

Stage	Number Negative (%)	Number Positive HIV(%)	Unknown*(%)	Total
Ia	2 (0.35)	-	-	2 (0.42)
Ia1	35 (6.11)	-	-	35 (7.40)
Ib2	6 (1.05)	2 (0.42)	-	8 (1.69)
Ib	13 (2.27)	3 (0.63)	-	16 (3.38)
Ib1	106 (18.46)	3 (0.63)	-	110 (23.26)
Ib2	28 (4.89)	1 (0.21)	-	29 (6.13)
IIa	29 (5.06)	-	1 (0.21)	30 (6.34)
IIb	106 (18.50)	6 (1.27)	-	112 (23.68)
IIIa	4 (0.70)	-	-	4 (0.85)
IIIb	97 (16.93)	3 (0.63)	-	100 (21.14)
IVa	10 (1.75)	1 (0.21)	-	11 (2.33)
IVb	10 (1.75)	11 (2.33)	-	11 (2.33)
Recurrent	5 (0.91)	-	1 (0.21)	5 (1.06)
Total	**451 (78.71)**	**20 (4.23)**	**2 (0.42)**	**473 (100)**

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

Histological Type	Number	Percent
Squamous cell carcinoma	**373**	**78.9**
Well differentiated	26	5.5
Moderately differentiated	184	38.9
Poorly differentiated	55	11.6
Not define differentiated	108	22.8
Adeno carcinoma	**67**	**14.2**
Adenosquamous	**16**	**3.4**
Small cell Neuroendocrine CA	**9**	**1.9**
High grade squamous cell intraepithelial lesion*	**1**	**0.2**
Neoplastic mesenchymal tissue consistent with rhabdomyosarcoma	**1**	**0.2**
Large cell Neuroendocrine CA	**1**	**0.2**
Unknown	**5**	**1.1**
Total	**473**	**100.0**

*** Recurrent from previous treatment with RHPL in 2549**

Table 8 : Treatment of Cancer of The Cervix.

Treatment	Number	Percent
Surgery alone	**108**	**22.8**
RH+BPL	56	11.8
LRHPL	13	2.7
LH	1	0.2
Extended hysterectomy	13	2.7
TAH	24	5.1
Subtotal hysterectomy	1	0.2
Chemotherapy alone	**8**	**1.7**
Radiation alone	**120**	**25.3**
Concurrent chemoradiation	**124**	**26.3**
Combined treatment		
TAH+CT	2	0.4
TAH+RT	2	0.4
TAH+Brachytherapy	0	0.0
TAH+CCRT	3	0.6
RH+Brachytherapy	2	0.4
RH+RT	8	1.7
RH+RT+Brachytherapy	1	0.2
RH+CCRT	21	4.4
RH+CCRT+Brachytherapy	1	0.2
RH+CT	4	0.8
LRHPL+CCRT	1	0.2
LRHPL+RT	1	0.2
Subtotal hysterectomy+ CCRT	1	0.2
Extended hysterectomy+Brachythrapy	3	0.6
Extended hysterectomy+CCRT	1	0.2
Abandoned hysterectomy+ CCRT+ Brachytherapy	2	0.4
Debulking tumor+CCRT	1	0.2
NAC+RH	13	2.7
NAC+RH+Brachytherapy	1	0.2
NAC+RH+CCRT	10	2.1
NAC+RH+CCRT+Brachytherapy	4	0.8
NAC+LRHPL	1	0.2
NAC+Abandoned hysterectomy+ CCRT+ Brachytherapy	1	0.2
NAC+Extended hysterectomy	1	0.2
NAC+CCRT	2	0.4
NAC awaiting for surgery	10	2.1
Symptomatic&Supportive treatment	6	1.3
loss to FU without treatment	3	0.6
refer to other hospitals for treatment	4	0.8
waiting for surgery	3	0.6
Total	**473**	**100.0**

RH	Radical Hysterectomy	BPL	Bilateral Pelvic Lymphadenectomy
TAH	Total Abdominal Hysterectomy	RT	Radiation Therapy
LRHPL	Laparoscopic Radical Hysterectomy with Pelvic Lymphadenectomy	NAC	Neoadjuvant Chemotherapy
LH	Laparoscopic Hysterectomy	CT	Chemotherapy
CCRT	Concurrent Chemoradiation		

N.B. Number of Radical Hysterectomy & BPL = 121 cases

Cancer of The Ovary

➢ Distribution by

- Age
- Parity
- 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
<10	1	0.9
11-20	7	6.1
21-30	4	3.5
31-40	15	13.0
41-50	30	26.1
51-60	37	32.2
61-70	12	10.4
71-80	9	7.8
Total	**115**	**100.0**

Minimum age 8 years, Maximum age 79 years
Mean age 48.91±14.89 years

TABLE 10 : Cancer of The Ovary : Parity Distribution.

Parity	Number	Percent
0	47	40.9
1	10	8.7
2	35	30.4
3	10	8.7
4	4	3.5
5	2	1.7
6	1	0.9
7	1	0.9
8	2	1.7
9	2	1.7
10	1	0.9
Total	**115**	**100.0**

TABLE 11 : Cancer of The Ovary : Histological Distribution.

Histology	Number	Percent
Epithelium	94	81.7
Germ Cell	12	10.4
Sex cord-stromal	7	6.1
Others	1	0.9
Unknown	1	0.9
Total	**115**	**100.0**

TABLE 12 : Epithelial Ovarian Cancer : Histological Subtype Distribution.

Histological Subtype	Number	Percent
Serous LMP	3	3.2
Serous adeno CA	20	21.3
Mucinous LMP	14	14.9
Mucinous adeno CA	7	7.4
Endometrioid CA	17	18.1
Clear cell CA	16	17.0
Mixed epithelial CA	8	8.5
AdenoCA	3	3.2
Mixed epithelial of LMP	3	3.2
Follicular CA arising in stroma ovarii	1	1.1
Steroid cell tumor	1	1.1
Large cell NE CA arising in mucinous LMP	1	1.1
Total	**94**	**100.0**

TABLE 13 : Ovarian Germ Cell Tumor (GCT) : Histological Subtype Distribution.

Histological Subtype	Number	Percent
Dysgerm	2	16.7
Immature teratoma	4	33.3
Squamous cell CA arising in mature teratoma	4	33.3
Yolk sac tumor	2	16.7
Total	**12**	**100.0**

TABLE 14 : Sex cord-stromal tumor : Histological Subtype Distribution.

Subtype	Number	Percent
Adult Granulosa cell tumor	7	100
Total	**7**	**100**

TABLE 15 : Others : Histological Subtype Distribution.

Subtype	Number	Percent
NeuroendocrineCA, microinvasive	1	50.0
Unknown	1	50.0
Total	**2**	**100**

TABLE 16 : Epithelial Ovarian Cancer : Stage Distribution.

Stage	Number	Percent
Ia	18	19.1
Ic	33	35.1
IIa	2	2.1
IIc	2	2.1
III	2	2.1
IIIa	4	4.3
IIIb	1	1.1
IIIc	27	28.7
IV	2	2.1
Recurrent	1	1.1
Unstage*	1	1.1
Stage not defined*	1	1.1
Total	**94**	**100**

Unstage* waiting for surgery
Stage not defined* Metas mucinous adenoCA

TABLE 17 : Germ Cell Ovarian Cancer: Stage Distribution.

Stage	Number	Percent
IA	3	25.0
IC	1	8.3
IIC	3	25.0
IIIA	1	8.3
IIIC	3	25.0
Recurrent	1	8.3
Total	**12**	**100.0**

TABLE 18 : Sex cord-stromal : Stage Distribution.

Stage	Number	Percent
Ia	3	42.9
Ic	2	28.6
IIIc	1	14.3
Recurrent	1	14.3
Total	**7**	**100.0**

TABLE 19 : Others : Stage Distribution.

Stage	Number	Percent
IIIc	1	50.0
Unstage	1	50.0
Total	**2**	**100**

TABLE 20 : Ovarian Cancer : Stage and Histology Distribution.

	Epithelial	Percent	Germ cell	Percent	Sex cord stromal tumor	Percent	Others	Percent
Ia	18	19.1	3	25.0	3	42.9	-	-
Ic	33	35.1	1	8.3	2	28.6	-	-
IIa	2	2.1	-	-	-	-	-	-
IIc	2	2.1	3	25.0	-	-	-	-
III	2	2.1	-	-	-	-	-	-
IIIa	4	4.3	1	8.3	-	-	-	-
IIIb	1	1.1	-	-	-	-	-	-
IIIc	27	28.7	3	25.0	1	14.3	1	50.0
IV	2	2.1	-	-	-	-	-	-
Recurrent	1	1.1	1	8.3	1	14.3	-	-
Unstage	1	1.1	-	-	-	-	1	50.0
Stage not defined	1	1.1		-	-	-	-	-
Total	**94**	**100**	**12**	**100**	**7**	**100.0**	**2**	**100**

TABLE 21 : Cancer of The Ovary : Primary Treatment and Adjuvant Chemotherapy.

Treatment	Number	Percent
Complete SSP with adjuvant chemo	20	17.4
Complete SSP without adjuvant chemo	19	16.5
Optimal Debulking with adjuvant chemo	1	0.9
Incomplete SSP with adjuvant chemo	41	35.7
Incomplete SSP without adjuvant chemo	17	14.8
NAC with Incomplete SSP with adjuvant chemo	9	7.8
NAC waiting for surgery	1	0.9
Chemotherapy + Interval debulking	1	0.9
Chemotherapy alone	5	4.3
Symptomatic/Supportive	1	0.9
Total	**115**	**100.0**

SSP = Surgical Staging Procedure

NAC = Neoadjuvant Chemotherapy

TABLE 22 : Ovarian Cancer : Outcome of Treatment.

Outcome	Number	Percent
Under FU without disease	47	40.9
Under FU with partial response	8	7.0
Under FU with disease	2	1.7
During treatment	34	29.6
During treatment with progress/persist of disease	8	7.0
Lost to FU	7	6.1
Palliative/symptomatic	7	6.1
Dead	2	1.7
Total	**115**	**100.0**

FU = Follow up

Cancer of The Uterine Corpus

➢ Distribution by

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

Table 23 : Cancer of The Corpus : Age Distribution.

Age	Number	Percent
30-40	4	3.4
41-50	24	20.5
51-60	57	48.7
61-70	22	18.8
71-80	9	7.7
>81	1	0.9
Total	**117**	**100.0**

Minimum age 33 years, Maximum age 83 years
Mean age 56.01± 9.26 years

Table 24 : Cancer of The Corpus: Distribution by Menopausal Status.

Menopausal Status	Number	Percent
Yes	79	67.5
No	38	32.5
Total	**117**	**100.0**

Table 25 : Cancer of The Uterine Corpus: Distribution by Underlying Medical Diseases.

Medical disease	Number	Percent
No	70	59.8
Hypertension	18	15.4
Hypertension+ DM	13	11.1
Hypertension + Heart disease	1	0.9
Hypertension+ Heart disease+ Thyrotxicosis	1	0.9
Hypertension + Gout	1	0.9
Hypertension+ DM+ Heart disease	1	0.9
DM	3	2.6
DM+Dyslipid	1	0.9
Dyslipid	1	0.9
Thyrotoxicosis	2	1.7
Asthma	4	3.4
Asthma+ Heart disease	1	0.9
Total	**117**	**100.0**

Table 26 : Cancer of The Uterine Corpus : Distribution by Parity.

Parity	Number	Percent
0	33	28.2
1	9	7.7
2	36	30.8
3	25	21.4
4	8	6.8
5	4	3.4
6	1	0.9
9	1	0.9
Total	**117**	**100.0**

Table 27 : Cancer of The Uterine Corpus : Distribution by Surgical Staging.

	Stage	Number	Percent
I		2	1.7
	Ia	20	17.1
	Ib	21	17.9
	Ic	22	18.8
II	IIa	7	6.0
	IIb	8	6.8
	IIc	1	0.9
III	IIIa	6	5.1
	IIIb	1	0.9
	IIIc	21	17.9
IV		1	0.9
IV	IVB	5	4.3
	Unknown*	2	1.7
	Total	**117**	**100**

Unknown* waiting for surgery

Table 28 : Cancer of The Corpus : Histologic Distribution.

Histology Type	Number	Percent
Endometrioid adenoCA		
Grade I	47	40.2
Grade II	28	23.9
Grade III	7	6.0
Grade not defined	1	0.9
Carcinosarcoma	5	4.3
Low grade ESS	5	4.3
Clear cell adenoCA	4	3.4
Leiomyosarcoma	3	2.6
Serous adenoCA	3	2.6
Mixed type	10	8.5
Adenosarcoma	1	0.9
Neoplastic mesenchymal tissue, consistent with rhabdomyosarcoma	1	0.9
Uterine tumor resembling ovarian sex cord tumor	1	0.9
Unknown	1	0.9
Total	**117**	**100.0**

Table 29 : Treatment of Corpus Cancer.

Treatment	Number	Percent
complete SSP	25	21.4
complete SSP+ RT	13	11.1
complete SSP+ CT	14	12.0
complete SSP+RT+Brachytherapy	8	6.8
complete SSP+CT+Brachytherapy	2	1.7
complete SSP+Brachytherapy	9	7.7
complete SSP+ CCRT	2	1.7
complete SSP+DMPA	1	0.9
Incomplete SSP	13	11.1
Incomplete SSP+RT	6	5.1
Incomplete SSP+CT	11	9.4
Incomplete SSP+Brachytherapy	2	1.7
Incomplete SSP+ CCRT	2	1.7
Incomplete SSP+RT+Brachytherapy	1	0.9
Incomplete SSP+DMPA	1	0.9
RT	2	1.7
CT	4	3.4
Awaiting for Surgery	1	0.9
Total	**117**	**100.0**

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

Table 30: Outcome of Treatment of Corpus Cancer.

Outcome	Number	Percent
During treatment	34	29.1
During treatment with progress/persist of disease	2	1.7
Under FU without disease	70	59.8
Under FU with partial response	1	0.9
Under FU with disease	1	0.9
Lost to FU with disease	3	2.6
Pallivative/symptomatic	2	1.7
Dead	2	1.7
Data not available	2	1.7
Total	**117**	**100**

FU = Follow up

Cancer of The Vulva

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

Table 31 : Cancer of The Vulva : Age Distribution.

Age	Number	Percent
<30	1	4.8
30-40	1	4.8
41-50	4	19.0
51-60	3	14.3
61-70	4	19.0
71-80	6	28.6
>81	2	9.5
Total	**21**	**100.0**

Minimum age 15 year, Maximum age 89
Mean age 61.05± 18.86 year

Table 32 : Cancer of The Vulva : Stage Distribution.

Stage	Number	Percent
I	1	4.8
Ia	1	4.8
Ib	1	4.8
II	3	14.3
IIa	1	4.8
III	5	23.8
IIIa	3	14.3
IIIb	1	4.8
IIIc	1	4.8
IV	2	9.5
IVa	2	9.5
Total	**21**	**100.0**

Table 33 : Cancer of The Vulva : Histological Type Distribution.

Histological Type distribution	Number	Percent
Squamous cell carcinoma		
Well differentiated	11	52.4
Moderately differentiated	6	28.6
Poorly differentiated	1	4.8
Rhabdomyosarcoma	1	4.8
Poorly differentiated Carcinoma with squamoid features+Paget's disease	1	4.8
Malignant Melanoma	1	4.8
Total	**21**	**100.0**

Table 34 : Treatment of cancer of the vulva.

Treatment	Number	Percent
Radical hemivulvectomy with BGND	2	9.5
BGND	1	4.8
WLE	2	9.5
Simple vulvectomy	1	4.8
Radical hemivulvectomy with BGND+RT	2	9.5
Radical local excision with BGND +RT	2	9.6
WLE with BGND +CT	1	4.8
Radical hemivulvectomy with BGND+ CCRT	1	4.8
Radical hemivulvectomy with BGND +CT	1	4.8
Radiation alone	3	14.3
Concurrent chemotherapy	1	4.8
Chemotherapy alone	1	4.8
Refuse treatment	1	4.8
Loss to FU without treatment	2	9.5
Total	**21**	**100.0**

WLE = Wide local excision
BGND = Bilateral groin node dissection
RT = Radiation Therapy
CT = Chemotherapy
CCRT = Concurrent chemoradiation
FU = Follow up

Cancer of The Vagina

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

Table 35 : Cancer of The Vagina : Age Distribution.

Minimum Age	44 year
Maxmum Age	74 year
Mean age	57.71 ± 11.59 year

Table 36 : Cancer of The Vagina : Stage Distribution.

Stage	Number	Percent
I	1	14.3
II	1	14.3
IIA	1	14.3
IIB	1	14.3
IVB	3	42.9
Total	**7**	**100.0**

Table 37 : Cancer of The Vagina : Histological Type Distribution.

Histological Type	Number	Percent
Squamous cell carcinoma		
Well differentiated	2	28.6
Moderately differentiated	2	28.6
Adenocarcinoma	2	28.6
MD, mixed serous&endometrioid adenoCA	1	14.3
Total	**7**	**100**

MD = Moderately differentiated

Table 38 : Cancer of The Vagina 2006.

No	HN	Age	Stage	Histo	Treatment
1	3121580	44	I	Squamous cell CA, Moderately differentiated	NAC+RHPL&BSO
2	2697412	73	II	Squamous cell CA, Well differentiated	CCRT
3	3151040	51	II	AdenoCA Well differentiated	RT
4	3077716	50	IIA	AdenoCA Well differentiated	Brachytherapy
5	3077019	74	IVB	SCCA Well differentiated	Brachytherapy
6	2562338	58	IIB	SCCA Moderately differentiated	RT
7	3154218	54	II	Mixed Serous& Endometrioid adenoCA	CCRT

NAC = Neoadjuvant chemotherapy
RT = Radiation Therapy
CCRT = Concurrent chemoradiation
RHPL = Radical Hysterectomy with Pelvic node Lymphadenectomy
BSO = Bilateral Salpingo Oophorectomy

Cancer of The Fallopian Tube

Table 39 : Cancer of The Fallopian Tube 2008

Data	Case 1	Case 2	Case 3	Case 4
HN	2613473	3084915	3059631	2894366
Age	83	57	55	63
Marital status	single	married	Single	Married
Parity	0	1-0-0-1	0	2-1-0-3
Presenting symptoms	postmenopausal bleeding	AUB	AUB 8 mo.	Pelvic pain
Stage	IA at least	IA at least	IIIC	Recurrent s/p optimal debulking +PTx6 20/10/49
Histology	Lt.tube:Poorly differentiated Serous AdenoCA	Moderately differentiated, Serous AdenoCA	Rt.tube:Endometrioid adenoCA gr.3	Poorly differentiated, Serous AdenoCA
Treatment	TAH&BSO with omental Biopsy, peritoneal washing	TAH&BSO+ Single Carboplatinx6	Complete staging 8/1/51 residual small bowel seeding + PTx6	Single Carboplatinx6
Outcome	Alive Without disease	Under FU, Without disease	Under FU, Without disease	Under FU, Without disease

Cancer of The Peritoneum

Table 40 : Cancer of The Peritoneum 2008

Data	Case 1	Case 2	Case 3	Case 4
HN	3108533	3125632	3033156	3064408
Age	39	45	74	58
Marital status	Married	Single	Married	Married
Parity	2-0-1-2	0	7-0-0-6	2-0-0-2
Presenting symptoms	Abdominal distension	Abdominal distension, chest pain	Refer from Mc cormic Known case CACx s/p RT yr.35 –abdominal distension	Pelvic mass
Stage	IIIC	IV	IV	IIIC
Histology	Mixed serous endometriod adeno CA	Adeno CA	Adeno CA	Serous adenoCA gr.2
Treatment	TAH&BSO, omentectomy 26/8/51+ PT	NAC, TAH&BSO, peritoneal washing 25/9/51+PT	PT	TAH&BSO with partial omentectomy, BPNS with debulking tumor 16/1/51 + PTx6
Outcome	During treatment	During treatment	During treatment	Under FU without disease

Cancer of The Peritoneum 2008. (continue)

Data	Case 5	Case 6	Case 7
HN	3064546	3011940	1967992
Age	50	55	74
Marital status	Single	Married	Married
Parity	0	3-0-0-3	4-0-0-4
Presenting symptoms	Abdominal distension, abdominal pain	Refer from Nakornping S/P Tumor resection with sigmoid colon resection c end to end anastomosis c colostomy+PTx6 16/11/50	Spot bleeding/vagina, abdominal distension
Stage	IIIC	IIIC, Recurrent	IIIC
Histology	Serous AdenoCA	Serous adenoCA	Mixed serous adenoCA gr.2 and endometrioid adenoCA gr.1
Treatment	Suboptimal debulking TAH&BSO, BPNS, PANS, partial omentectomy, appendectomy, ascites collection 21/3/51 + PTx9	PTx5, Palliative RT	Explor lap to biopsy tumor and repair transverse colon 12/6/51 + Palliative care
Outcome	Under FU without disease	During treatment	Dead 15/7/51 from Sepsis

BPNS = Bilateral pelvic node sampling
RT = Radiation therapy
PT = Paclitaxel + Carboplatin

Cancer of Two Primaries Gynecologic Organ

Table 41 : Cancer of The Two Primaries Gynecologic Organ 2008

Data	Case 1 CA Corpus +CA Ovary	Case 2 CA Corpus +CA Ovary	Case 3 CA Ovary +CA Cervix
HN	3086850	3075297	3088483
Age	53	45	54
Marital status	married	Single	married
Parity	2-0-0-2	0	3-0-0-3
Presenting symptoms	AUB, pelvic pain	Abdominal distension, abdominal mass	Post coital bleeding
Stage	CA Corpus IIIC CA Ovary IC	CA Corpus IB CA Ovary IIIC	CA Ovary IIC CA Cervix IB1
Histology	Corpus:Endometrioid AdenoCA, gr.2 Lt.ovary: Endometrioid AdenoCA, gr.3	Corpus: Endometrioid AdenoCA, gr.3 Both ovaries: Endometrioid AdenoCA, gr.3	Lt.Ovary: Mucinous tumor with microinvasion Cervix: WD, Mucinous adenoCA
Treatment	Complete staging 10/4/51+ PTx6	Complete staging 5/3/51+ PTx9	RHPL with complete staging 21/4/51 + PTx6+ WPRT
Outcome	Under FU without disease	Under FU without disease	Under FU without disease

Cancer of The Two Primaries Gynecologic Organ (continue)

Data	Case 4 CA Corpus +CA Ovary	Case 5 CA Corpus +CA Ovary	Case 6 CA Corpus +CA Ovary
HN	3132026	3016466*** ศันสนีย์ หล้าหนัก	3096574
Age	53	48	56
Marital status	Single	married	Single
Parity	0	2-0-0-2	0
Presenting symptoms	Abdominal pain, distension, weight loss	Abdominal mass	Abdominal distension
Stage	CA Corpus IC CA Ovary IIIC	CA Corpus IA gr.1 CA Ovary IC gr.2	CA Corpus IIB, CA ovary IC at least
Histology	Corpus: Endometrioid adenoCA gr.1 Lt., Rt.Ovary: Endometrioid adenoCA gr.1	Corpus: Endometrioid adeno CA gr.1 Lt.ovary: Endometrioid adeno CA gr.2	Corpus:Endometrioid AdenoCA gr.2 Rt.ovary: Endometrioid AdenoCA gr.2 Lt.ovary: metas adenoCA
Treatment	Complete staging 23/9/51 + PT	Complete staging 8/2/51 Single Carboplatinx6	TAH&BSO, partial omentectomy 3/6/51 + PTx 6
Outcome	During treatment	Loss to FU	Under FU without disease

Cancer of The Two Primaries Gynecologic Organ (continue)

Data	Case 7 CA Corpus +CA Ovary	Case 8 CA Corpus +CA Ovary	Case 9 CA Corpus +CA Ovary
HN	2869020	3065505	2827775
Age	55	70	42
Marital status	Single	Married	Single
Parity	0	4-0-0-4	0
Presenting symptoms	Bleeding/vagina	AUB	Abdominal mass
Stage	Recurrent CA corpus IIB CA ovary IA gr.I c lung metas s/p TAH&BSO,omentectomy, PANS 23/2/49 +adjuvant RT 20/4/49-6/49	CA Corpus IB, CA Ovary IC	CA corpus IA CA Ovary IC gr.II
Histology	Corpus: Endometrioid adenoCA gr.2 Ovary: Endometrioid adenoCA gr.1	Corpus: Mixed serous adenoCA&endometrioid adenoCA gr.3, sarcomatous component is nonspecified high grade sarcoma, rhabdomyosarcoma and chondrosarcoma Rt.ovary: serous adenoCA gr.2	Corpus: Endometrioid adenoCA gr.I Lt.Ovary: Endometrioid adenoCA gr.II Rt.Ovary: Mixed Endometrioid adenoCA gr.III and clear cell adenoCA
Treatment	PTx6 > PR CT 15/12/51: Multiple pulmonary, hepatic metas	TAH&BSO, BPNS, PANS, partial omentectomy, peritoneal washing 25/11/51	TAH&BSO& lysis adhesion 23/4/51+ Carboplatinx6
Outcome	During treatment (Megace)	Under FU without disease	Under FU without disease

BPNS = Bilateral pelvic node sampling
RT = Radiation therapy
PT = Paclitaxel + Carboplatin

Gestational Trophoblastic Disease

- Gestational Trophoblastic Tumor
- Molar Pregnancy

TABLE 42 : Gestational Trophoblastic Tumors in 2008.

No	HN	Age (yr)	Initial HCGtiter	Prognosis Classification	Diagnosis	FIGO	Treatment	Result
1	3058250	49	960,061	Met GTT (cervix)	Chorocarcinoma (Patho from TAH & BSO)	II	TAH&BSO →EMAx7	Remission
2	3070620	43	2,577	Non met GTT	Choriocarcinoma (Patho from D&C)	I	MTX+FAx5 →EMAx4	Remission
3	3078083	34	176,435	Met GTT (lung)	Choriocarcinoma (Patho from TAH)	III	EMAx12 → TAH →PI x2	Under treatment with PI
4	3088557	38	215,800	Met GTT (lung)	Invasive mole (Patho from TAH)	III	EMAx6 → TAH → EMAx3	Remission
5	3091038	17	8,031	Met GTT (lung)	Persistent, mole	III	MTX+FAx7	Remission
6	3099778	46	1,868	Non met GTT	Persistent, mole	I	MTX+FAx5	Remission
7	3106660	30	12,100	Non met GTT	Persistent, mole	I	MTX+FAx6	Remission
8	3120765	46	18,090	Non met GTT	Invasive mole (patho from TAH)	I	TAH → MTX +FA x7	Remission
9	3123765	37	1,261,000	Met GTT (lung, vagina)	Persistent, mole	III	EMA-CO	Under treatment
10	3127060	39	6,665	Non met GTT	Persistent, mole	I	MTX x10* → ActinomycinD	Under treatment
11	3146246	54	6,885	Non met GTT	Persistent, mole	I	Actinomycin D	Under treatment
12	3149472	48	45,275	Met GTT (lung, brain)	Persistent, mole	III	TAH&BSO** → MTX+FA x3** → EMAx2** →Cis+Ifosx3** → PT+WBR	Under treatment
13	3144394	38	30,560	Met GTT (lung, liver, jejunum)	Choriocarcinoma	IV	TAH&Rt.SO*	Dead 7/11/51
14	3147718	17	9,474	Non met GTT	Persistent, mole	I	MTX+ FA	Under treatment
15	2893198	17	>10,000	Non met GTT	Persistent, mole	III	MTX+ FA x3	Remission

MGTN = Metastatic Gestational Trophoblastic Neoplasia

NMGTN = Non-metastatic Gestational Trophoblastic Neoplasia

CCA = Chorio carcinoma

Act D = Actinomycin D

MTX + FA = Methotrexate + Folinic Acid

EMA = Etoposide + Methotrexate + Actinomycin D

EMA-Co = Etoposide + Methotrexate + Actinomycin D + Cyclophosphamide

TABLE 43 : Molar Pregnancy in 2008.

No	HN	Age	Gravida	GA (wk)	UT Size (wk)	HCG titer	Risk	Treatment	Pathology	Result
1	1849934	32	G3 P 2-0-0-2	14	12-14	211792	High	Suction & curettage	Partial hydatidiform mole	Remission
2	2893198	17	G1 P0	7	Top N/S	>10,000	Low	Dilatated& curettage	Complete hydatidiform mole	Persistent mole
3	3099778	46	G3 P 1-0-1-1	10	12	85,350	high	Suction & curettage	Complete hydatidiform mole	Persistent mole

SECTION II

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

Medical Personnel and Facilities

TABLE 44 : 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	2
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

- Daranee Sirichaisutdhikorn M.D.
- Manatsawee Manopunya M.D.

2nd Year Fellow

- Kannika Paengchit, M.D.
- Kriengkrai Sittidilokratna, M.D.
- Nuttavut Kantathavorn, M.D.

Visiting Fellow - Sitthysack Panyavatthanasinh

Radiation Oncologists

1. Associate Professor Vicharn Lorvidhaya, M.D.
2. Professor Vimol Sukthomya, M.D.
3. Assistant Professor Anan Tonusin, M.D.
4. Assistant Professor Imjai Chitapanarux, M.D.
5. Assistant Professor 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.
3. Associate. Prof. Jongkolnee Settakorn, M.D.
4. Assist. Prof. Kornkanok Sukapan, M.D.

Medical Oncologists

1. Professor Sumitra Thongprasert, M.D.
2. Assistant Professor Chaiyut Charoentum, M.D.
3. Assistant Professor Busyamas Chewaskulyong, M.D.

Diagnostic Procedures and Operations

TABLE 45 : Diagnostic Procedures and Operations for Cervical Neoplasia.

Procedures & Operations	Number
Colposcopy	556
LEEP	235
Cervical Conization	6
TLH	2
Simple Hysterectomy	31
Extended Hysterectomy &PL	17
Abandoned Radical Hysterectomy & PL	6
Laparoscopic Radical Hysterectomy & PL	16
Radical Hysterectomy & PL	121

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

Table 46 : Operations for Ovarian, Corpus, Vagina and Vulvar Cancer.

Operations	Number
CRS for Ovarian Cancer	95
CRS for Fallopian Tube Cancer	3
CRS for Peritoneal Cancer	7
Surgical Staging for Corpus Cancer	90
Simple hysterectomy for GTT	3
Wide Local Excision & BGND for Vulvar Cancer	1
Wide Local Excision for Vulvar Cancer	2
Radical Hemivulvectomy & BGND for Vulvar Cancer	6
Radical Local Vulvectomy & BGND for Vulvar Cancer	2
Bilateral Groin Node Dissection for Vulvar Cancer	4
Radical hysterectomy & PL for Vaginal Cancer	1

CRS = Cytoreductive Surgery
BGND = Bilateral Groin Node Dissection

PUBLICATIONS & PRESENTATIONS

1997-2007

1. **THERMAL INJURY IN CERVICAL SPECIMENS OBTAINED FROM LOOP ELECTROSURGICAL EXCISION PROCEDURE (LEEP)**
   Authors: Srisomboon J, Siriangkul S, Rugpao S, Ruangrongmorakot K, Suprasert P, Phongnarisorn C.
   Published in: Thai Cancer Journal 1997; 23: 53-57

2. **WELL DIFFERENTIATED VILLOGLANDULAR ADENOCARCINOMA OF THE UTERINE CERVIX : A FIRST REPORT OF LYMPH NODE METASTASIS IN TWO OF FOURTEEN CASES.**
   Authors: Siriaunkgul S, Maleemonkol S, Khunamornpong S, Charoeniam V, Isariyodom P, Pantusart A
   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

3. **ADENOCARCINOMA OF THE UTERINE CERVIX : A CLINICOPATHOLOGICAL STUDY**
   Authors: Siriaunkgul S, Maleemonkol S, Khunamornpong S, Charoeniam V, Isariyodom P, Pantusart A
   Published in: Thai Journal of Obstetrics and Gynaecology 1997; 9: 133-137

4. **THE CLINICAL BENEFIT OF A REPEATED PAPANICOLAOU SMEAR AT THE TIME OF COLPOSCOPY.**
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   Published in: Chiang Mai Medical Bulletin 1998; 37 (1-2): 1-5

5. **MOLAR PREGNANCY IN HILLTRIBE THAI PEOPLE : PROBLEMS AND MANAGEMENT**
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6. **OVARIAN MUCINOUS INTESTINAL TUMORS OF LOW MALIGNANT POTENTIAL WITH MICROINVASION: A CLINICOPATHOLOGIC STUDY OF 12 CASES.**
   Authors: Siriaungkul S, Khunamornpong S, Maleemonkol S, Srisomboon J
   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

7. **A 14-YEAR RETROSPECTIVE STUDY OF MOLAR PREGNANCY IN MAHARAJ NAKORN CHIANG MAI HOSPITAL : HIGH INCIDENCE OF PERSISTENT DISEASE**
   Authors: Srisomboon J, Ployleumsaeng D, Suprasert P, Phongnarisorn C, Pantusart A
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   Authors: Suprasert P, Srisomboon J
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9. **SIGNIFICANCE OF SURGICAL MARGIN STATUS IN CERVICAL SPECIMENS OBTAINED FROM LOOP ELECTROSURGICAL EXCISION PROCEDURE (LEEP)**
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   Published in: Thai Journal of Obstetrics and Gynaecology 1999; 11 (Suppl 1): 75-81

10. **EXPERIENCE WITH RADICAL HYSTERECTOMY AND PELVIC LYMPHADE-NECTOMY FOR CERVICAL CANCER WITH NO PERITONIZATION AND NO RETROPERITONEAL DRAINAGE.**
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11. CLEAR CELL CARCINOMA OF THE OVARY
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Presented at: XIV thAnnual ScientificMeeting of The Royal Thai College of Obstetricians and Gynaecologists, October, 1999, the Royal Golden Jubilee Building, Bangkok, Thailand

12. REASONS FOR IMPROPER SIMPLE HYSTERECTOMY IN PATIENTS WITH INVASIVE CERVICAL CANCER.
Authors: Srisomboon J, Suprasert P, Phongnarisorn C, Pantusart A, Cheewakriangkrai C, Charoenkwan K, Siriaree S.
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13. RADICAL PARAMETRECTOMY, UPPER VAGINECTOMY AND PELVIC LYMPHADENECTOMY OF INVASIVE CERVICAL CANCER FOLLOWING SIMPLE HYSTERECTOMY.
Authors: Srisomboon J, Phongnarisorn C, Suprasert P, Cheewakriangkrai C, Charoenkwan K, Siriaree S
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14. HIGH DOSE RATE AFTERLOADING BRACHYTHERAPY IN CARCINOMA OF THE CERVIX. AN EXPERIENCE OF 1992 PATIENTS.
Authors: Lorvidhaya V, Tonusin A, Changwiwit W, Chitapanarux I, Srisomboon J, Wanwilairat S, et al.
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Authors: Kietpeerakool C, Srisomboon J,Suprasert P, Cheewakriangkrai C, Charoenkwan K, Siriaree S
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90. CERVICAL INTRAEPITHELIAL NEOPLASIA II-III WITH ENDOCERVICAL CONE MARGIN INVOLVEMENT AFTER CERVICAL LOOP CONIZATION: IS THERE ANY PREDICTOR FOR RESIDUAL DISEASE?
Authors: Kietpeerakool C, Khunamornpong S, Srisomboon J, Siriaunkgul S, Suprasert P
Published in: Journal of Obstetrics and Gynaecology Research 2007; 33(5):660-4

91. APPRPRIATE INTERVAL FOR REPEAT EXCISION IN WOMEN UNDERGOING PRIOR LOOP ELECTROSURGICAL EXCISION PROCEDURE FOR CERVICAL NEOPLASIA
Authors: Kietpeerakool C, Srisomboon J, Tiyayon J, Ruengkhachorn I, Cheewakriangkrai C, Suprasert P
Published in: Asian Pacific Journal of Cancer Prevention 2007; 8(3) 379-382

92. LYMPHOVASCULAR SPACE INVASION AS A PROGNOSTIC DETERMINANT IN UTERINE CANCER

Authors: Cheewakriangkrai C, Panggid K, Siriaungkul S, Khunamornpong S, Suprasert P, Srisomboon J
Published in: Asian Pacific Journal of Cancer Prevention 2007; 8(3): 363-36

93. SEXUAL FUNCTION AFTER RADICAL HYSTERECTOMY FOR EARLY-STAGE CERVICAL CANCER

Authors: Jongpipat J, Charoenkwan K
Published in: Journal of Sexual Medicine 2007; 4(6): 1659-65

94. PREVALENCE AND CHARACTERISTICS OF LATE POSTOPERATIVE VOIDING DYSFUNCTION IN EARLY-STAGE CERVICAL CANCER PATIENTS TREATED WITH RADICAL HYSTERECTOMY

Authors: Charoenkwan K, Pranpanas S
Published in: Asian Pacific Journal of Cancer Prevention 2007; 8(3): 387-389

95. SURGICAL MORBIDITY ASSOCIATED WITH TOTAL LAPAROSCOPIC HYSTERECTOMY IN WOMEN WITH PRIOR DIAGNOSTIC EXCISION OF THE CERVIX

Authors: Phongnarisorn C, Srisomboon J
Published in: Journal of Obstetrics and Gynaecology Research 2007; 33(4): 519-23

96. TEN YEARS EXPERIENCE WITH RADICAL HYSTERECTOMY AND PELVIC LYMPHADENECTOMY IN EARLY STAGE CERVICAL CANCER

Authors: Suprasert P**,** Phongnarisorn C, Charoenkwan K, Cheewakriangkrai C, Siriaree S, Kietpeerakool C, et al
Presented at: the15th ESGO, Berlin, German, 31 October, 2007

PUBLICATIONS & PRESENTATIONS

2008

Effects of gel lubricant on cervical cytology

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Objective: To determine whether the use of lubricating gel during vaginal speculum examination affected cytological interpretation in the conventional Papanicolaou (Pap) smear.
Methods: Two consecutive cervical smears were obtained from 1,334 patients undergoing Pap smear screening. The first smear ('non-contaminated') was obtained using the routine collection technique. The second smear ('gel-contaminated') was taken after applying a 1 to 1.5 cm ribbon of lubricating gel onto the external cervical os. Adequacy of Pap smear and discordance in diagnosis between the paired smears were examined.
Results: The proportion of unsatisfactory smears was significantly higher in the gel-contaminated smears, 12.1% versus 1.7% ($p<0.01$). This difference was consistent across all reproductive groups. For patients who had smears satisfactory for cytological evaluation, the discordance in cytological diagnosis between the gel-contaminated and non-contaminated smears from the same patient was 0.3%.
Conclusion: Lubricating gel contamination of the cervix can adversely affect adequacy and cytological diagnosis in the conventional Pap smear.

Published in: Acta Cytologica 2008; Nov-Dec 52(6): 654-8.

Type III radical hysterectomy and pelvic lymphadenectomy via minilaparotomy: a minimally invasive technique generated promising results when tested in 18 women with early cervical cancer. The goal: a safe and speedy recovery

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No abstract available

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Underlying Pathology of Women with Atypical Squamous Cells, Cannot Exclude High-Grade Squamous Intraepithelial Lesion (ASC-H) Smears in a Region with a High Incidence of Cervical Cancer

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Aim: To evaluate the histopathology of women, who had atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesions (ASC-H) on cervical cytology in a region with high incidence of cervical cancer**.**

Methods: This study was conducted at Chiang Mai University Hospital, Chiang Mai, Thailand. All women with ASC-H, who had undergone colposcopic and histolopathologic evaluation between October 2004 and January 2007, were recruited. Similar cohorts with other squamous cell abnormalities on a Pap smear, who had undergone colposcopy during the same period, were included as comparative groups.

Results: During the study period, 85 women who had ASC-H smears underwent colposcopic and histopathologic evaluation. The mean age was 45.3 years (range, 20-64 years). The histopathologic results of these 85 women were as follows: CIN II-III, 52 (61.2%); invasive cancer, 7(8.2%); CIN I, 6 (7.1%); and no lesions, 20 (23.5%). The incidence of underlying CIN II or higher in an ASC-H smear (69.4%) was intermediate between ASC-US (22.7%), LSIL (44.7%) and HSIL (90.5%) smears. There was no statistically significant difference in the incidence of CIN II or higher between women who were 40 years old or more and those who were younger (68.7% and 71.4%, respectively, P=0.81), or between premenopausal and postmenopausal women (71.4% and 63.6%, respectively, P=0.49).

Conclusion: Reporting ASC-H cytology in our population is strongly associated with significant cervical pathology, particularly invasive cancer that is possibly at a rate higher than previously reported. Women who have ASC-H smears should therefore be referred for immediate colposcopy regardless of age and menopausal status.

Published in: Journal of Obstetrics and Gynaecology Research 2008; Apr 34(2): 204-9.

Human immunodeficiency virus infection in women undergoing treatment for cervical neoplasia: prevalence and the feasibility of routine screening.

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This study was undertaken to evaluate the prevalence of human immunodeficiency virus (HIV) infection and the feasibility of routine HIV screening in women undergoing various treatment of cervical neoplasia at Chiang Mai University Hospital between October 2004 and October 2006. Four hundred and ninety five women were recruited for HIV screening with the opt-out approach performed. In this study, thirty-seven (7.47%) women had a previous diagnosis of HIV infection with a mean duration 4.16 years (range: 1-15 years). The remaining 458 women consented to have an HIV test. Six women (1.31%) were newly identified as HIV seropositive, giving an overall prevalence of 8.69%. In conclusion, the prevalence of HIV infection in this study was considerably high and routine HIV screening is feasible because of the high acceptance rate.

.**Published in**: Asian Pac J Cancer Prev. 2008 Jan-Mar; 9(1):36-8

Factors predicting occult invasive carcinoma in women undergoing a 'see and treat' approach.

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This study was undertaken to evaluate the incidence and independent predictors of unexpected invasive cancer of cervix in women with high-grade squamous intraepithelial lesions (HSIL) on Pap smear who had undergone a 'see and treat' approach. Women with HSIL on cervical cytology undergoing colposcopy, followed by loop electrosurgical excision procedure (LEEP) at Chiang Mai University Hospital between January 2001 and April 2006 were analyzed. During the study period, 446 women were identified. Mean age was 45.6 years (range, 25-75 years). One hundred and twenty-one (27.1%) women were postmenopausal. Unsatisfactory colposcopy was observed in 357 (80.0%) women. Of the 446 women, 76 (17.04%, 95% CI=13.67 to 20.86) had invasive lesions on LEEP specimens. Multivariate analysis revealed that unsatisfactory colposcopy and premenopausal status were statistically significant independent predictors for invasive lesions in a 'see and treat' LEEP with an adjusted odds ratio of 4.68 (95%CI=1.82 to 12.03, P<0.01) and 2.10 (95%CI=1.12 to 3.94, P=0.02), respectively. In conclusion, occult invasive lesion of the cervix was noted in 17% of women with HSIL Pap smear who underwent a 'see and treat' approach at our institute. Unsatisfactory colposcopy and premenopausal status were significant independent predictors of having such lesion.

.**Published in**: Asian Pac J Cancer Prev. 2008 Apr-Jun; 9(2): 209-12.

Incidence and predictors of febrile morbidity after radical hysterectomy and pelvic lymphadenectomy for early stage cervical cancer patients

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This study was undertaken to evaluate the incidence and independent predictors for febrile morbidity after radical hysterectomy and pelvic lymphadenectomy. Patients with FIGO stage IB-IIA cervical cancers who had undergone RHPL at Chiang Mai University Hospital between January 2003 and December 2005, were reviewed. The clinical variables including the age at diagnosis, menopausal status, body mass index, previous cervical conization, tumor size, preoperative chemotherapy, preoperative anemia, operative time, and estimated blood loss were analyzed for prediction of postoperative febrile morbidity. During the study period, 357 women were reviewed. The mean age was 44.7 years. Sixty-five (18.2%) women were postmenopausal. The majority of women (77.3%) were in FIGO stage IB1. The most common histology was squamous cell carcinoma (69.2%). Febrile morbidity was noted in 94 women (26.3%, 95% CI= 21.8-31.2) in whom 25 (7.0%) had urinary tract infection (19), abdominal wound infection (4), and vaginal cuff infection (2), respectively. Only massive blood loss (>1,500 ml) was noted as the significantly independent predictor for febrile morbidity (aOR= 2.7, 95% CI=1.1-6.6, P=0.028). In conclusion, approximately one-fourth of the women undergoing RHPL at our institute had postoperative febrile morbidity. Only massive blood loss is a significant predictor for this complication

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Outcome of loop electrosurgical excision for HIV-positive women in a low-resource outpatient setting

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To assess outcome in HIV-positive women undergoing the loop electrosurgical excision procedure (LEEP). METHOD: A prospective study was conducted with 789 outpatients undergoing LEEP at Chiang Mai University Hospital between October 2004 and June 2008. RESULTS: The 70 HIV-positive women (8.9%) were younger (P<0.001) and had a lower parity (P<0.001) than the remaining women. The proportion of women undergoing LEEP for persistent low-grade lesions was higher (8.6% vs 1.9%) and the prevalence of margin involvement was higher (60.0% vs 49.4%) among the HIV-positive women. After adjusting for age, parity, menopausal status, size of excised lesion, and histopathologic result, HIV infection was not significantly associated with LEEP complications (adjusted odds ratio, 0.41; 95% confidence interval, 0.15-1.15). CONCLUSION: The higher risk of resection margin involvement in HIV-infected women was not associated with LEEP complications

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Outcome of interval debulking in advanced ovarian cancer patients

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Interval debulking and neoadjuvant chemotherapy have been used in management of advanced epithelial ovarian cancer for many years in order to achieve optimal residual disease and reduce surgical morbidity. The present study was conducted to evaluate the outcomes of advanced ovarian cancer patients treated with these two approaches prior to cytoreductive surgery in Chiang Mai University Hospital between January 2001 and December 2006. The medical records of 29 patients who met the criteria were retrospectively reviewed. Most had stage IIIC serous cystadenocarcinomas. We found that the 5-year progression free survival and overall survival were 10% and 22% while the median values were 13 months and 34 months, respectively. Multivariate analysis showed that a suboptimal residual tumor volume was a statistically significant adverse prognostic factor for overall survival. In conclusion, interval debulking surgery and neoadjuvant chemotherapy before cytoreductive surgery lead to a more favorable outcome with advanced epithelial ovarian cancers.

Published in: Asian Pac J Cancer Prev. 2008 Jul-Sep;9(3):519-24.

Underlying histopathology of HIV-infected women with squamous cell abnormalities on cervical cytology

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This study was undertaken to evaluate the underlying histopathology of HIV-infected women who had abnormal cervical cytology. HIV-infected women with abnormal cervical cytology undergoing colposcopy at Chiang Mai University Hospital between January 2001 and February 2008 were reviewed. The cohorts were matched and compared with an HIV-negative group. During the study period, 65 HIV-infected women with abnormal cervical cytology were available for review. The abnormal cervical smears were atypical squamous cell (9), low-grade squamous intraepithelial lesion (22), high-grade squamous intraepithelial lesion (27), and squamous cell carcinoma (7). When stratified by severity of abnormal cytology, HIV-infected women had a higher risk of having cervical intraepithelial neoplasia II or higher, whether the cervical smear showed low-grade (P=0.01) or high-grade abnormality (P=0.04) compared with the HIV negative group. After adjustment by age, parity, and menopausal status, HIV-infected women had 2.56 times the risk of having CIN II or higher (69.2% of HIV-infected women compared with 47.7% of HIV negative women; 95% CI=1.21-5.40, P=0.01). In conclusion, HIV-infected women with abnormal Pap smears are a population subset with a higher risk of significant cervical lesions, irrespective of the severity of abnormal cervical smears

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HPV genotyping in cervical cancer in Northern Thailand: adapting the linear array HPV assay for use on paraffin-embedded tissue

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Objective: The aims of this study were to determine the prevalence of HPV infection and distribution of HPV genotypes in Northern Thai women and thereby estimate the benefit of administering the HPV vaccine in the population. METHODS: Formaldehyde-fixed, paraffin-embedded samples of invasive squamous cell carcinoma from 99 patients were tested for HPV genotypes using the Linear Array HPV Genotyping Test. RESULTS: HPV was detected in 96/99 (96.9%) cases. Seventy-five (78.1%) cases were single infections and 21 (21.9%) multiple. HPV16 and HPV18 were the most common subtypes, detected in 62/96 (64.4%) cases. HPV52 and HPV58 infections were found in 17/96 (17.7%) cases. Co-infection always involved HPV16. The most common co-infection was HPV16 and 52 (7 cases) but never HPV16 and 18. CONCLUSIONS: Although the prevalence of HPV infection in cervical cancer of Northern Thai women is comparable to the other regions worldwide, the distribution of HPV subtypes differs with lower frequencies of HPV16 and 18, and higher frequencies of HPV52 and 58. Moreover, multiple infections are common. The vaccine against HPV16 and HPV18 can be estimated to prevent approximately two thirds of the cervical cancer cases in Northern Thailand. Although designed for use on unfixed tissue, this study shows that the Linear Array HPV Genotyping Test can be successfully used for HPV genotyping on paraffin-embedded archival tissue. This methodology also provides a means for retrospective studies on serial samples for a greater understanding of HPV genotypes, co-infections, and relationship to cervical cancer

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What we have learned from over 1400 radical hysterectomy operations in Chiang Mai University Hospital

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From the experience of over 1400 RHPL operations for patients with early-stage cervical cancer in CMUH between 1997 and 2007, we have learned that retroperitoneal drainage and peritonization can be safely abandoned after the operation. Intermittent self-catheterization can resume bladder function earlier than the suprapubic cystostomy. Extraperitoneal pelvic lymphadenectomy has various roles in managing patients with inadvertent simple hysterectomy of invasive cervical cancer and surgical staging of cervical cancer. Radical hysterectomy may be safely performed in patients found to have positive nodes during the operation without significant increase in the complication rate after adjuvant radiation. The strongest predicting factor of pelvic node metastases in early-stage cervical cancer is the presence of LVSI. The risk of nodal metastases is highly associated with the severity or the extent of LVSI. Patients with stage IB2 and IIA cervical cancer have much higher incidence of lymph node metastases than those with stage IB1. Adjuvant radiation may not be necessary in patients with node-negative stage IA2-IIA cervical cancer who have intermediate- risk factors which are the intracervical factors, i.e., deep stromal invasion and/or LVSI in the cervical specimens after RHPL. Pap smear from the vaginal stump appears to have limited value in detecting recurrence after RHPL for early-stage cervical cancer. Nerve-sparing RHPL aiming at preserving pelvic autonomic nerves will play an important role in the future to minimize bladder, colorectal, and sexual dysfunctions after the operation. Alternatively, RHPL can be carried out via the laparoscopic and the minilaparotomy approaches.

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Carcinoma of extrahepatic bile ducts and gallbladder metastatic to the ovary: a report of 16 cases.

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Information on ovarian metastasis of carcinoma of the extrahepatic bile ducts and gallbladder is limited. Sixteen examples are reported; 3 primary tumors were hilar cholangiocarcinomas, 5 common bile duct carcinomas, and 8 gallbladder carcinomas. The patients ranged from 21 to 87 years (mean, 59 years); 7 presented to gynecologists with nonspecific pelvic symptoms similar to primary ovarian neoplasms. The primary tumor was identified before the detection of the ovarian lesions in 5 cases, was simultaneously detected with the ovarian metastases in 9, and was diagnosed postoperatively in 2. All but one case had bilateral ovarian involvement. The thirty-one ovarian lesions included twenty-nine grossly abnormal ovaries that were enlarged (range, 3.0-16.5 cm, mean, 9.4 cm) and 2 ovaries with only microscopic involvement. The sectioned surface was solid in 9, solid-cystic in 15, and multicystic in 5. Microscopically, ovarian surface implants were seen in 66%, multinodular growth in 58%, and infiltrative stromal invasion in 81%. Mucinous epithelial differentiation was seen in 81%, sometimes with foci of benign-like or borderline-like epithelium simulating primary ovarian mucinous neoplasia. Cystadenoma and cystadenofibroma of nonmucinous type was even mimicked strikingly in some cases because of flattening of epithelium lining glands and cysts. Signet ring cells were present in sufficient quantity for a diagnosis of Krukenberg tumor in four tumors. Colloid-type carcinoma was observed at least focally in 3 tumors. Nonmucinous carcinomatous components included adenocarcinoma with high-grade endometrioid-like morphology in 2 cases, papillary adenocarcinoma simulating mixed müllerian epithelial adenocarcinoma in 1, and undifferentiated carcinoma in 2. Immunohistochemical studies in 8 cases showed a positive reaction for cytokeratin 7 in all and for cytokeratin 20 in 4 cases. The high rate of bilaterality, surface involvement, multinodular growth, and heterogeneity of patterns were the most helpful features for indicating a metastatic nature, with signet ring cells also being helpful in the minority of cases in which they were present. Although the diagnosis of a metastatic tumor to the ovary is possible in most of the cases based on standard diagnostic criteria, problems in the differential diagnosis may be posed by morphologic patterns that overlap strikingly with primary ovarian neoplasms, benign, borderline, and malignant, as discussed herein.

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Clinical Significance of Atypical Squamous Cells of Undetermined Dignificance by the 2001 Bethesda System: Experience from a Cervical Cancer Hign Incidence Region

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The aim of this study was to evaluate the underlying lesions and factors predicting cervical intraepithelial neoplasia (CIN) 2+ in women who had "atypical squamous cells of undetermined significance" (ASC-US) on cervical cytology in the region with a high incidence of cervical cancer. This study was prospectively conducted at Chiang Mai University Hospital, Chiang Mai, Thailand. All women with ASC-US cytology undergoing colposcopic evaluation between October 2004 and August 2008 were recruited. During the study period, 208 women were enrolled. Mean age was 44.4 years. The histopathologic results at the initial evaluation were as follows: CIN 2-3, 21 (10.1%); adenocarcinoma in situ, 3 (1.4%); cancer, 5 (2.4%); CIN 1, 26(12.5%); and no lesion, 153 (73.6%). Multivariate analysis revealed that nulliparity (adjusted adds ratio [aOR] =4.09; 95% iconficence interval [CI] = 1.04-16.10) and current oral contraceptive use (aOR = 2.85; 95% CI= 1.14-7.15) were independent predictors for having CIN 2+ at the initial colposcopy. At the median follow- up time of 6.7 months, CIN 2-3 lesions were additionally detected in 2 women. In conclusion, ASC-US cytology in our population has a relatively high prevalence of underlying invasive carcinoma. Nulliparity and current oral contraceptive use are independent predictors for harboring CIN2+.

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Interobserver reproducible with liquid-based cervical cytology screening in developing country.

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OBJECTIVE: A modified liquid-based techniques known as the "LiquiPrep (LP) system" requires neither expensive equipment nor complicated specimen preparation. The aim of this study was to assess the applicability of the LP for use in a developing country. METHODS: Cervical cytology specimens were collected from 777 women, using the Cervex-Brush. The brush was first smeared on a glass side for conventional Papanicolaou (CP) stain, and then immersed in preservation fluid for LP preparation. Cytologic interpretations were classified into four categories: 1) no atypical cells, 2) atypical squamous epithelial cells (ASC), 3) definite epithelial cell abnormality, and 4) unsatisfactory specimen. Interobserver variability was tested using weighted kappa statistics. RESULTS: An LP specimen cost $9 per case compared to $3 per case for a conventional Pap smear. The time to learn the technique was only a few days. Forty six (5.92%) specimens by LP were unsatisfactory. The overall agreement between cytopathologists was 96.7% (weight kappa=0.62), with 95.6% (weight kappa=0.44) for the cases enrolled earlier, increasing to 97.9% (weight kappa=0.78) for the cases enrolled later. CONCLUSIONS: In summary, after a short learning curve, interobserver reproducibility of LP smear was near perfect. This feature of the LP, together with the relatively low cost and simple protocol, makes it quite suitable for cervical cytology screening in developing countries. Moreover, with this technique, some of each sample can be reserved for additional studies such as HPV detection and subtyping.

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Prognostic value of P53 expression in early stage cervical carcinoma treated by surgery.

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OBJECTIVE: To evaluate the prognostic significance of p53 protein expression in patients with early stage cervical carcinoma treated by surgery alone in a well-controlled study. METHODS: A matched case-control study was performed in patients with stage Ib-IIa cervical carcinoma who underwent radical hysterectomy with pelvic lymphadenectomy. Patients had neither lymph node metastasis nor involvement of the parametrium and surgical margins, and did not receive any adjuvant treatment. Cases included 30 patients who had tumor recurrence within 5 years after surgery; controls included 60 patients who were disease-free for at least 5 years after surgery. Cases and controls were within 10 years of age, had the same stage and tumor type, and underwent surgery on as close to the same date as possible. The tumor sizes of cases and controls were within 1 cm of each other. Expression of p53 protein was studied by immunohistochemistry. Expression was considered positive when at least 10% of tumor cells showed nuclear staining. RESULTS: No significant difference of p53 expression was observed between the case group and the control group (33% versus 40%). High histologic grade of tumors and lymphovascular space invasion were significantly associated with tumor recurrence in multivariable analysis (p=0.012 and 0.014, respectively). CONCLUSION: In this study, expression of p53 did not correlate with tumor recurrence. Immunohistochemistry for p53 protein appears to provide no prognostic information in the patients with early stage cervical cancer treated by surgery.

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Cyclooxygenase-2 expression in squamous cell carcinoma of the uterine cervix is associated with lymph node metastsis

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OBJECTIVES: Previous studies have indicated that cyclooxygenase-2 (COX-2) activity is related to the development and progression of cervical cancer. In this study, we evaluated the association between COX-2 expression and specific clinicopathologic features in surgically-treated squamous cell carcinoma of the uterine cervix. METHODS: Immunohistochemical staining for COX-2 was performed on 196 cases of stage IB-IIA cervical squamous cell carcinoma. Results were correlated with the clinicopathologic features and disease-free survival using statistical analysis. RESULTS: Expression of COX-2 was detected in 48.5% of cases. COX-2 expression was significantly associated with lymph node metastasis (p=0.045) but lacked significant correlation with tumour stage, size, histologic grade, deep stromal invasion, lymphovascular space invasion, and parametrial involvement. In multivariate analysis, only parametrial involvement and lymphovascular space invasion (LVSI) were independent predictors for lymph node metastasis (p=0.001 and 0.007, respectively). COX-2 expression was not associated with lymph node metastasis in the absence of parametrial involvement or LVSI. In the cases with LVSI, COX-2 expression was significantly associated with lymph node metastasis (p=0.03), although with marginal significance (p=0.068) in the multivariate analysis. COX-2 expression was not associated with a decrease in disease-free survival for patients overall (p=0.977). However, in patients who did not receive adjuvant treatment, COX-2 expression was significantly associated with decreased disease-free survival (p=0.008) and was a significant predictor of recurrence (p=0.014). CONCLUSIONS: In this study, COX-2 expression was associated with lymph node metastasis in cervical squamous cell carcinoma, but this was linked to the presence of LVSI or parametrial involvement. This suggests that COX-2 expression may enhance lymph node metastasis after LVSI occurs. If so, immunohistochemical staining for COX-2 may provide additional prognostic information in LVSI-positive cases, in particular in patients who do not receive postoperative adjuvant treatment.

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TWELVE YEARS EXPERIENCE WITH RADICAL HYSTERECTOMY AND PELVIC LYMPHADENECTOMY IN EARLY STAGE CERVICAL CANCER

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Objective: To evaluate the outcome and complication of early stage cervical cancer patients treated with Radical Hysterectomy and Pelvic lymphadenectomy (RHPL).

Methods: The medical record of cervical cancer patients undergoing RHPL at Chiang Mai university hospital between January 1995 and December 2006 were reviewed.

Result: There were 1253 available data patients in the study period. The mean age was 44 years old (range 17-79 years). 338 patients (26.9%) had prior diagnostic conization. The maximum tumor size was 8 cm. The most common histology was squamous cell carcinoma (67%) followed by adenocarcinoma (23%). The distribution of FIGO staging were stage IA8.7%,stage IB 15.8%, stage IB161%stage IB2 6.2%and stage IIA(8.5%). Pelvic node, parametrial and vaginal margin involvement were detected in 15.9%, 10.7% and 3.8% of patients, respectively. 66.5% of patients underwent RHPL without adjuvant treatment. 12.1% received neoadjuvant chemotherapy. 76 (6%) patients developed recurrence and 6 died of disease. The estimated -10 year recurrence- free survival was 90%. The most common long term complication was lymphedema which was noted in 7% of patients.

Conclusion: Early stage cervical cancer treated with RHPL has long term favorable outcome with minimal morbidity.

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CHARACTERISTICS AND PERIOPERATIVE OUTCOMES OF HUMAN IMMUNODEFICIENCY VIRAL INFECTED- WOMEN UNDERGOING LOOP ELECTROSURGICAL EXCISION PROCEDURE FOR CERVICAL NEOPLASIA

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Aims: To determine the characteristics and outcomes of human immudeficiency virus (HIV)-infected women who had undergone loop electrosurgical excision procedure (LEEP).

Methods: Both newly diagnosed and known HIV-infected women who had undergone LEEP at Chiang Mai University Hospital between October 2004 and August 2008 were analyzed and compared with HIV-negative women undergoing such procedure in the same period.

Results: During the study period, 472 women underwent LEEP, 43 (9.1%) were HIV-positive. Mean age of the HIV-infected women was 37.6 years. Thirty-one (72.1%) women were treated with antiretroviral therapy. Ten (26.3%) women had CD4 + cell count < 200 cells/mL. HIV-infected women were significant younger (P<0.001), had lower number of parity (P<0.001), and had higher incidence of vulvovaginal infection at the time of Pap smear screening (P<0.001) than those HIV-negative women. The proportion of HIV-infected women underwent LEEP for persistent cervical intraepithelial neoplasia I was higher than that of HIV-negative women (13.96% and 0.93%, respectively). There was no significant difference in the LEEP margin involvement (P=0.117), duration of uncomplicated vaginal bleeding (P=0.405), incidence of persistent vaginal bleeding (P=0.875), and perioperative complications (P=0.358) after LEEP between HIV-positive and HIV-negative women.

Conclusion: Women with HIV positive had several differences in characteristic and outcomes of LEEP form those observed in HIV negative women. However, this infection does not pose significant impact on perioperative complications after LEEP.

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OUTCOMES OF COMBINATION THERAPY IN EARLY AND LOCALLY ADVANCED STAGE SMALL CELL NEUROENDOCRINE CARCINOMA OF CERVIX

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Objective: To analyze the relapse and overall survival rate in women with small cell neuroendocrine carcinoma of the cervix.

Methods: The medical records of 30 women who had their initial treatment for FIGO stage IB1–IIIB small cell neuroendocrine carcinoma of cervix (SCNEC) between 1999 and 2006 at Chiang Mai University Hospital, Thailand were reviewed. All patients received cisplatin (75 mg/m^2), d1 and etoposide (100 mg/m^2), d1-3 every 3 weeks after radical hysterectomy as adjuvant treatment for stage IB1-IIA or concurrent with standard pelvic irradiation for stage IIB-IIIB and cases with at least one of three high-risk factors e.g. positive lymph node, parametrial invasion, close vaginal margins < 0.5 cm, and those with two intermediate risks defined as deep stromal invasion (≤ 3 mm from serosa) and lymph-vascular space involvement (LVSI) > 10 spaces after radical surgery. The median cycle of chemotherapy was 6 (1-6 cycles). The median follow-up for surviving patients was 24 months (4–103 months).

Results: The median age at the time of diagnosis was 39.5 years. The FIGO stages of the patients were as follows: 13 (43%) IB1, 5 (17%) IB2, 3 (10%) IIA, 7 (23%) IIB, and 2 (7%) IIIB. Thirteen (43.3%) of the 30 patients had a relapse. The median time to first relapse after completion of treatment was 16 months (0–98 months). The sites of relapse were distant (lungs, brain, liver, bone, supraclavicular and aortocaval nodes, and skin) in 6 (46%) cases, local (pelvic and vagina) in 4 (31%), and combined in 3 (23%). Grade 4 neutropenia was observed in 8/30 (27%). Severe ototoxicity was found in 2/30 (7%) which resulted in high-frequency sensorineural hearing loss. The overall survival rate was 61% at 5 years. The median survival of patients with stage IIB-IIIB was 22 months (95%CI= 5.4-38.6 months).

Conclusions: Patients with small cell neuroendocrine carcinoma of cervix (SCNEC) have a worse prognosis. Despite the combination treatment that included etoposide and cisplatin-based chemotherapy, the potentiality of local relapse and distant metastases still remains in early and locally advanced stage. All patients with SCNEC should be closely followed-up.

Poster Presented in 60th Annual Congress of the Japan Society of Obstetrics and Gynecology, Yogohama, Japan: April 14, 2008

THE 20 STEPS OF RADICAL HYSTERECTOMY FOR THE BEGINNERS IN GYNECOLOGIC CANCER OPERATION

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In Chiang Mai University Hospital, the radical hysterectomy operation is divided into 20 steps as follows:

Step 1: Positioning of the patient. Step 2: Skin incision. Step 3: Abdominal exploration. Step 4: Adequate exposure of the operative field. Step 5: Transection of round ligaments and utero-ovarian or infundibulo-pelvic ligaments. Step 6: Separation of bladder from the cervix and upper vagina. Step 7: Preparation of the paravesical space. Step 8: Preparation of the parectal space. Step 9: Dissection of common iliac and external iliac lymph nodes. Step 10: Dissection of superficial and deep obturator lymph nodes. Step 11:Dissection of hypogastric lymph nodes. Step 12: Ligation and cutting of the uterine artery and / or vein. Step 13: Freeing of the ureter from the peritoneum & identification of hypogastric nerve. Step 14: Opening of the rectovaginal space. Step 15: Cutting and ligation of the uterosacral, rectouterine, and rectovaginal ligaments. Step 16: Cutting and ligation of the cardinal ligaments. Step 17: Dissection of the ureter from the vesicouterine (VU) ligaments. Step 18: Cutting and ligation of the VU ligaments and the paravaginal tissueStep 19: Closure of the vaginal stump and hemostasis. Step 20: Closure of the abdomen and specimen examination.

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WHAT WE HAVE LEARNED FROM OVER 1500 RADICAL HYSTERECTOMY OPERATIONS IN CHIANG MAI UNIVERSITY HOSPITAL: PART 1

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Patients with early-stage cervical cancer can be treated with either radical hysterectomy plus pelvic lymphadenectomy (RHPL) or radiation with equivalent survival outcome. Between January 1997 and July 2008, 1,505 RHPL operations have been performed in patients with stage IA-IIA cervical cancer at Chiang Mai University Hospital (CMUH), Chiang Mai, Thailand. The surgical technique is modified from the original Tokyo method performed by Professor Shoichi Sakamoto at Tokyo University.

What we have learned from the operations are as follows. Routine retroperitoneal drainage and peritonization after RHPL can be safely omitted. No significant difference was noted in term of postoperative morbidity(e.g. infectious morbidity, pelvic lymphocyst, and ureteral fistula) among patients undergoing RHPL with no drainage and no peritonization compared with those undergoing retroperitoneal drainage and peritonization. Patients performing intermittent self-catheterization for management of hypotonic bladder dysfunction after RHPL can resume bladder function earlier (13 days versus 17 days) than those performing suprapubic cystostomy with no significant difference in the incidence of urinary tract infection. The survival of stage IB-IIA cervical cancer patients whose radical hysterectomy(RH) was abandoned for grossly positive pelvic nodes was significantly worse than that of patients whose node metastases were identified after RHPL, but the complications in both groups were not significantly different despite receiving adjuvant radiation. The worse survival resulted from higher number and larger size of positive nodes in the abandon RH group. The presence of lympho-vascular space involvement (LVSI) in stage IB1 cervical cancer was significantly associated with the risk of pelvic node metastases which accounted for 30 % versus 6 % in tumors without LVSI. The risk of nodal metastases increased to 40% if there was extensive LVSI (>10 spaces/ cervical specimen) in the tumor.

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WHAT WE HAVE LEARNED FROM OVER 1500 RADICAL HYSTERECTOMY OPERATIONS IN CHIANG MAI UNIVERSITY HOSPITAL: PART 2

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Between January 1997 and July 2008, 1,505 RHPL operations have been performed in patients with stage IA-IIA cervical cancer at Chiang Mai University Hospital (CMUH), Chiang Mai, Thailand. What we have learned from the operations are as follows.

Among node-negative stage IA2-IIA cervical cancer patients who had intermediate pathologic risk factors, i.e. deep stromal invasion and/or LVSI after RHPL, the administration of adjuvant radiation with or without chemotherapy did not significantly affect survival outcome. The 5-year disease-free survival (DFS) of these patients was 91 %. The incidences of lymph node metastases in stage IB1 (358 cases), IB2 (61 cases), and IIA (46 cases) cervical cancer were 25 %, 38 %, and 39 %, respectively. Parametrical involvements were noted in 10 %, 12 %, and 11 %, respectively in such patients undergoing RHPL. The 3-year DFS of patients with stage IB1 and IB2 cervical cancer are 96 % and 80 %, respectively. Of the 988 patients with stage IA2 – IIA cervical cancer treated with RHPL during 1995-2004 and followed for a median duration of 48 months, 61 (6 %) had recurrence (30 local, 28 distant, 3 combined). The 5-year and 10-year recurrence-free survivals were 92.7 % and 92.05 %, respectively. Approximately one-fourth of the patients undergoing RHPL in CMUH experienced postoperative febrile morbidity. By multivariate analysis, only massive blood loss of greater than 1500 ml was the significant independent predictor for febrile morbidity. Patients who had massive blood loss during the operation had 2.7 times the risk of having febrile morbidity. During the follow-up period after RHPL for early-stage cervical cancer, performing Pap smear at the vaginal stump had limited value in detecting tumor recurrence. The sensitivity, the specificity, the negative and positive predictive values were 4.3 %, 99.3 %, 96.1 %, and 20%, respectively.

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PELVIC NODE METASTASIS IN SQUAMOUS CELL CARCINOMA OF THE CERVIX WITH DEPTH & WIDTH OF LESS THAN 1MM AND ONLY 1 LYMPHO-VASCULAR SPACE INVOLVEMENT: A CASE REPORT.

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Background : Lymph node metastases is rare in stage IA1 cervical carcinoma especially in patients whose width & depth of invasion are less than 1 mm. Lympho-vascular space involvement(LVSI) is an independent predictor for pelvic node metastasis in cervical carcinoma. The amount or the extent rather than only the presence of LVSI has been reported to correlate significantly with the risk of lymph node metastasis.We reported a case of early stage 1A1 squamous cell cervical carcinoma with only 1 LVSI who had 3 positive pelvic nodes.

Case report: A 46-year-old, HIV negative patient presented with high grade squamous cell intraepithelial lesion (HSIL) on routine Pap smear. She underwent colposcopic exam followed by loop electrosurcical excision procedure (LEEP). The LEEP specimen showed squamous cell carcinoma, the depth and width of invasion were less than 1 mm with only 1 LVSI. The margin was positive for HSIL at the ectocervix. She was treated with radical hysterectomy & pelvic lymphadenectomy (RHPL) 2 months after LEEP. The final histology showed chronic cervicitis with pelvic node metastasis, 1 at left hypogastric node and 2 at right obturator nodes. She received concurrent chemoradiation following the operation and was still free of disease at the last follow- up of 10 months.

Conclusion: The presence of LVSI in stage IA1 cervical carcinoma even 1 space may pose the patient at risk for lymph node metastasis. Pelvic node dissection should be considered in planning management of such patient.

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SURVIVAL OUTCOMES OF PATIENTS WITH CLEAR CELL OVARIAN CARCINOMA TREATED WITH CARBOPLATIN & PACLITAXEL REGIMEN

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Background & Objective

Clear cell ovarian cancer (CCOC) is an aggressive tumor with poor survival outcomes. The objective of this study was to evaluate the treatment results of CCOC patients treated with carboplatin and paclitaxel (PT) after tumor reductive surgery.

Materials and Methods: The medical records of CCOC patients treated at Chiang Mai University Hospital between 2002 and 2007 were reviewed.

Results: There were 73 CCOC patients in the study period. Three patients had primary peritoneal carcinoma. The mean age was 50 years (19-77 years). The most common presenting symptom was pelvic mass (34). 45.2% of the patients received complete surgical staging procedure. The FIGO stage distribution were stage I (42), stage II (10), stage III (17), and stage IV (4). 3 and 2 patients had liver and lung metastases, respectively. About two thirds of the patients had no residual tumor after surgery. 57.5% of the patients received 6 cycles of PT regimen. The response rate was 74%. With the mean follow- up of 25 months, 35 patients developed disease progression and 8 of them died of disease. The 5-year progression- free survival (PFS) was 48.4% and median progression-free interval was 22 months. The 5-year PFS was significantly worse in stage III & IV when compared to that in stage I & II (9.5% vs 65.2 %, respectively, P=0.00). However, in patients with early stage disease, the 5-year PFS did not show statistically significant difference between patients undergoing complete and incomplete surgical staging procedures (75.6 % vs 58.5%, respectively, P=0.2).

Conclusion: Over two thirds of patients with clear cell ovarian carcinoma were diagnosed in the early stage and had favorable survival outcome while those with advanced stage disease had significantly worse survival outcome.

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RECURRENCE PATTERNS AFTER RADICAL HYSTERECTOMY FOR STAGE IB1-IIA CERVICAL CARCINOMA

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Objective: The aim of this study was to analyze the clinical pattern of recurrence in patients surgically treated for stage IB1-IIA cervical carcinoma.

Methods: From January 2003 to December 2006, 38 patients with disease recurrence after radical hysterectomy with or without adjuvant chemo/radiation (CM/RT) were included in this study. The indications for adjuvant CM/RT were based on the pathological findings including lymph node metastasis, parametrial involvement, positive surgical margins, lymphovascular space invasion (LVSI), and deep stromal invasion. The minimal follow-up period was 2 years.

Results: The median age at diagnosis was 42 years (30-66 years). Among the 38 patients with recurrence, the FIGO stages were as follows: 20 (52.6%) IB1, 9 (23.7%) IB2, 9 (23.7%) IIA. Twenty-three (60%) patients received adjuvant CM/RT,while the remaining14(40%) did not. Pelvic node metastasis, positive surgical margins, parametrial involvement, LVSI, and deep stromal invasion were present in 12 (32%), 6 (16%), 7 (18%), 33 (87%) and 33 (87%) of the 38 patients, respectively. Twenty-one (55%) patients had locoregional recurrence, 15 (40%) had distant metastasis, and 2 (5%) had combined distant and pelvic recurrences. Among the 12 patients with pelvic node metastasis who developed recurrence, 8 (67%) had distant recurrence compared to 7/ 26 (27 %) of those without nodal metastasis ($p<0.05$). In the group of negative nodes who developed distant recurrence, 4/7 (57%) and 3/7(43%) patients were in stage IB1 and stage IIA cervical carcinoma, respectively.

Conclusion: After radical hysterectomy with or without adjuvant chemoradiation in patients with early -stage cervical carcinoma, recurrence can occur in locoregional and/or distant sites even in the absence of any pathological risk factors.

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HISTOPATHOLOGY OF WOMEN WITH ATYPICAL SQUAMOUS CELLS OF UNDETERMINED SIGNIFICANCE CYTOLOGY IN A REGION WITH HIGH INCIDENCE OF CERVICAL CANCER

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Objective: To evaluate the underlying lesions and factors predicting high-grade lesions in women who had "atypical squamous cells of undetermined significance" (ASC-US) on cervical cytology in a region with high incidence of cervical cancer.

Methods: This study was prospectively conducted at Chiang Mai University Hospital, Chiang Mai, Thailand. All women with ASC-US cytology undergoing colposcopic examination and biopsy between October 2004 and August 2008 were recruited.

Results: During the study period, 208 women were enrolled. Mean age was 44.4 years (range, 17-79 years). The histopathologic results of these 208 women were as follows: cervical intraepithelial neoplasia (CIN) 2-3, 21 (10.1%); adenocarcinoma in situ, 3 (1.4%); cancer, 5 (2.4%); CIN 1, 26 (12.5%); and no lesions, 153 (73.6%). At the median follow-up time of 6.7 months, 2 women were newly diagnosed of CIN 2-3. Multivariate analysis revealed that nulliparity (adjusted odds ratio [aOR] =4.06; 95% confidence interval [CI] = 1.03-15.98) and hormonal contraception use (aOR=2.64; 95%CI=1.14-6.12) were independent predictors for having underlying significant lesions,i.e. CIN 2-3 or higher.

Conclusion: The incidence of underlying significant lesions in women with ASC-US cytology was 14.9%. Nulliparity and hormonal contraception are significant predictors for underlying high-grade lesions in ASC-US cytology in our population.

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CAN THE NEED FOR ADJUVANT RADIOTHERAPY BE PREDICTED PREOPERATIVELY IN PATIENTS WITH STAGE IB1 CERVICAL CANCER

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Objective: To assess the rate of postoperative radiotherapy (RT) in stage IB1 cervical cancer patients who underwent radical hysterectomy and pelvic lymphadenectomy (RHPL) and to identify preoperative factors that were associated with the need for postoperative RT

Methods: The clinical and histological data of 329 FIGO stageIB1 cervical cancer patients who underwent RHPL from January 2003 to December 2005 were retrospectively reviewed. The main outcome considered was the rate of postoperative external beam RT with/without brachytherapy (BT). Its association with various preoperative clinical factors was assessed by chi-squared testing and stepwise logistic regression multivariated analysis.

Results: The rate of all postoperative RT was 33.1%. Of these 100 patients, 91.7% received external beam RT with/without BT. The rate of external beam RT was 32.5% in patients with gross lesion and 24.4% in patients with microscopic disease. In multivariate analysis, uterine metastasis (OR 3.22,P=0.01), tumor size >2 cm on the day before surgery (OR 2.95,P=0.02), and infiltrative/ulcerative lesion (OR 2.28,P=0.01) of the group with gross tumors, and paritiy $\geq$ 3 (OR 4.77,P=0.03) and extent of carcinoma at the cone margin > 2 aspects (OR 4.5,P=0.0) of the group with microscopic tumors were identified as independent factors that need for postoperative RT (excluding BT alone).

Conclusion: The presence of some tumor characteristics were associated with the higher chance for adjuvant RT ater RHPL. However, uniformed and reliable methods to estimate the tumor size and to assess uterine tumor extension are needed if these fators will be applied clinically to preoperatively predict the need for postioperative RT.

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HYDRONEPHROSIS AFTER RADICAL HYSTERECTOMY : A PROSPECTIVE STUDY

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Background: One part of the operative procedure of radical hysterectomy (RH) is the dissection of the ureter from its overlying tissue and may injure the ureteric adventitia. This probably induces ureteric obstruction and produces hydronephrosis after that.

Aim: To evaluate the incidence of hydronephrosis after RH in patients with early stage cervical cancer.

Material & Methods: From July 2006 and March 2007, 77 patients with IA2-IIA cervical cancer who planned to undergo radical hysterectomy and pelvic lymphadenectomy (RHPL) were performed urinary tract ultrasonography 5 times (1 day before operation, 7 days, 6 weeks, 3 months and 6 months after operation) by 1 radiologist. The patients who had hydronephrosis before operation, intraoperative ureteric injury, or loss follow up at 7 days after operation were excluded from the study.

Result: There were 77, 55, 52 and 52 patients performing urinary tract ultrasonography in each visit time. The right hydronephrosis was detected in 16,7, 5,3 patients and the left hydronephrosis was detected in 16,11,3,1 patients at 7 days, 6 weeks, 3 months and 6 months after operation, respectively. The hydronephrosis persisted in 8 patients (15%) at 3 months after operation. Two of them were underwent explore laparotomy to lysis ureteric adhesion. 1 patient who developed hydronephrosis had local recurrence and received further treatment with concurrent chemoradiation therapy.

Conclusion: The incidence of persistent hydronephrosis over 3 months after RHPL was 15% even without intra-operative ureteric injury. However, only few of them required surgical intervention

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THE RANDOMIZED STUDY OF CONTINUED VERSUS ABANDONED RADICAL HYSTERECTOMY IN INTRA-OPERATIVE POSITIVE PELVIC NODE(S) CERVICAL CANCER PATIENTS: *THE PRELIMINARY REPORT*

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Objective: To compare the outcome of cervical cancer patients treated with continued versus abandoned radical hysterectomy (RH) when intra-operation finding revealed positive pelvic node(s).

Design: Randomized control trial study

Material&Methods: Between February 2005 and December 2007, the early stage cervical cancer patients who found intra-operative positive pelvic node(s) were randomized to continued versus abandoned RH. All cases underwent pelvic lymphadenectomy with paraaortic node sampling and received adjuvant concurrent chemo-radiation after that. The clinical characteristics and disease free survival (DFS) in both arms were compared.

Results: There were 10 patients in the continued RH group and 17 patients in the abandoned RH group. The stage distribution, the histology, the mean value of age, the tumor size, the operative time, the number of nodes removal, and the complication were not statistically significant difference between both groups. While the mean number of positive nodes and the mean intra-operative blood loss were higher in the continued RH groups. With the mean follow up time of 22 months, the recurrent rate was 30% in continued RH group and 11% in abandoned group (P=0.2). The 3 year-DFS was 32% in the continued RH group and 80% in the abandoned RH group (P=0.3).

Conclusion: The intra-operative pelvic node positive patients who continued RH revealed the tendency to be unfortunate outcome than the abandoned RH group. However, this result was bias with the higher number of positive pelvic nodes in the continued RH group. The large number of patients in each group was required to eliminate this bias.

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THREE PELVIC NODES INVOLVEMENT IN FIGO STAGE IA1 SQUAMOUS CERVICAL CANCER PATIENT WITH ONLY 1 LYMPHO-VASCULAR SPACE INVOLVEMENT: A CASE REPORT

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BACKGROUND: Lymphatic metastases is rare in FIGO stage IA1 especially in patients whose width & depth of invasion less than 1 mm. LVSI in microinvasive squamous cell cervical cancer is still controversial for increase risk of nodal involvement. However, we found a case diagnosed as FIGO stage 1A1 with only 1 LVSI having 3 pelvic nodes metastases.

CASE: A 46-year-old, HIV negative patient presented with high grade squamous cell intraepithelial lesion (HSIL) on her routine Pap smear. She received colposcopic examination and underwent conization by loop electrosurcical excision procedure (LEEP). The LEEP specimen showed squamous cell carcinoma, depth and width of invasion less than 1 mm with only 1 LVSI. The margin was positive as HSIL at ectocervix. She was operated radical hysterectomy with bilateral pelvic node dissection (RHPL) 2 months after that. The final histology showed chronic cervicitis with 1 left hypogastric node and 2 right obturator nodes involvement. She received concurrent chemoradiation following the operation and still free of disease at the last follow- time of 10 months.

Conclusion: The LVSI in patients with FIGO stage IA1 even 1 space demonstrates the possibility of lymph node involvement and should be treated with RHPL rather than simple hysterectomy without pelvic node evaluation.

Poster Presented in: The 12th Biennial International Gynecological Cancer Society Meeting (IGCS), Bangkok, Thailand, October 25-28, 2008.

LYMPHOVASCULAR SPACE INVASION AS A PROGNOSTIC INDICATOR IN NON-OBESE WOMEN WITH ENDOMETRIAL ENDOMETRIOID ADENOCARCINOMA

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Introduction: Endometrial cancer is one of the significant cancer-related causes of death in women worldwide. The influence of prognostic factors such histological type, histological grade, stage, depth of myometrial invasion, and cervical involvement on outcome measures are well defined. While the presence of lymphovascular space invasion (LVSI) has also been shown to be an independent prognostic factor in most studies and associated with recurrence and overall survival rate.

Objective: The aim of this study was to evaluate the clinical significance of lymphovascular space invasion (LVSI) in women with endometrial endometrioid adenocarcinoma who had normal weight or less (body mass index (BMI) ≤ 25 kg/m^2).

Material and Methods: Medical records of the patients who had newly diagnosed endometrial endometrioid adenocarcinoma and underwent a complete staging surgery (n=138) between 1999 and 2007 were reviewed.

Statistical analysis: The correlation between the clinicopathological variables and the presence of LVSI were made with χ^2 or Fisher's exact test. The univariate survival curves were established by Kaplan-Meier method. The significance of the survival difference was examined by the log-rank test.

Results: The median age was 55 years (30-75 years). The median BMI was 21.3 kg/m^2 (14.0-25.0 kg/m^2). LVSI and lymph node metastasis was present in 73 (53%) and 38 (27.5%) patients, respectively. LVSI was significantly correlated with lymph node metastasis ($p<0.0001$), advanced FIGO stage ($p< 0.0001$), poor histologic grade ($p= 0.008$), cervical involvement ($p= 0.047$), and deep uterine invasion ($p<0.0001$). Patients with LVSI, when stratified by FIGO stage, had a significant lower 5-year survival rate (62.4% VS 76.7%, $p= 0.028$). The presence of LVSI and poor histologic grade were significantly found in those who had disease recurrences ($p= 0.04$ and $p< 0.0001$, respectively).

Conclusion: LVSI was one of the prognostic indicators for disease recurrence and associated with poor survival in non-obese women with endometrial endometrioid adenocarcinoma.

Poster Presented in: The 12th Biennial International Gynecological Cancer Society Meeting (IGCS), Bangkok, Thailand, October 25-28, 2008.

PRIMARY MALIGNANT PERIVASCULAR EPITHELOID CELL TUMOR OF THE ROUND LIGAMENT TREATED WITH LAPAROSCOPIC RADICAL EXCISION: A CASE REPORT

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Background: Perivascular epitheloid cell tumor (PEComa) is a group of rare mesenchymal tumor including angiomyolipoma, clear cell sugar tumors, lymphangioleiomyomatosis and other unusual clear cell tumors at various locations. For gynecologic organs, the uterine corpus seems to be the most frequently reported anatomical site of origin. However, PEComa has also been described in the cervix, vagina, pelvis broad ligament, and ovary. The therapy generally consists of the radical resection. An adjuvant therapy is not known. Most recommendation is a close and long-term follow up clinically and by imaging study.

Case: We described a 45-year-old female patient presented with painless mass at left lower abdomen for a few years. The CT scan showed a circumscribed mass in the left round ligament of the uterus. The initial diagnosis was leiomyoma. The patient underwent laparoscopic excision of this mass. The intraoperative findings revealed an 8x7x8 cm extraperitoneal mass attached to the intrapelvic portion of the left round ligament. The histological diagnosis was malignant PEComa with positive surgical margin. The second laparoscopy was performed to radical re-excise the residual left round ligament and the surrounding tissue. The patient did not receive any adjuvant therapy. Subsequent follow-up imaging, have no evidence of recurrence. The patient is clinically free of disease 12 months after surgery.

Conclusion: This case is the first documented PEComa of the round ligament and demonstrated the possibility that laparoscopic radical excision could play a treatment role. Further long-term data is needed.

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DEVELOPMENT AND USE OF CMU VAGINAL TUBES IN GYNECOLOGIC LAPAROSCOPIC SUEGERY

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CMU VAGINAL TUBE is a tube, made from polymethyl methacrylate (PMMA) or the so-called acrylic, which is a thermoplastic with transparency, stability, water insolubility and biological compatibility. The malting and boiling point are 130-140 and 200 degree cellcious, respectively. The density is 1,150-1,190 Kg/m^3. In gynecologic laparoscopic colpotomy such as total laparoscopic hysterectomy and other procedures including vaginectomy, the vaginal tube is an important item for delineating the vagina and preventing gas leakage. Many imported, commercially available vaginal tubes or uterine manipulators are very expensive. We have designed and developed 2 versions of CMU VAGINAL TUBE by heating and transforming an acrylic sheet to a cylinder, which is cheap, stable, available and able to be sterized. The first version is used for simple hysterectomy in benign disease, and the second version is used for hysterectomy with upper vaginectomy in cervical cancer patients. From 2003 to 2008, CMU VAGINAL TUBE was used in laparoscopic surgery in 148 patients: 74(50%) total laparoscopic hysterectomy, 67(45.3%) laparoscopic radical hysterectomy, 7(4.7%) laparoscopic radical parametrectomy. All procedures were performed without conversion. CMU VAGINAL TUBE is an effective and safe item in gynecologic laparoscopic surgery.

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Clinical Significance of Atypical Squamous Cells of Undetermined Dignificance by the 2001 Bethesda System: Experience from a Cervical Cancer Hign Incidence Region

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The aim of this study was to evaluate the underlying lesions and factors predicting cervical intraepithelial neoplasia (CIN) 2+ in women who had "atypical squamous cells of undetermined significance" (ASC-US) on cervical cytology in the region with a high incidence of cervical cancer. This study was prospectively conducted at Chiang Mai University Hospital, Chiang Mai, Thailand. All women with ASC-US cytology undergoing colposcopic evaluation between October 2004 and August 2008 were recruited. During the study period, 208 women were enrolled. Mean age was 44.4 years. The histopathologic results at the initial evaluation were as follows: CIN 2-3, 21 (10.1%); adenocarcinoma in situ, 3 (1.4%); cancer, 5 (2.4%); CIN 1, 26(12.5%); and no lesion, 153 (73.6%). Multivariate analysis revealed that nulliparity (adjusted adds ratio [aOR] =4.09; 95% iconficence interval [CI] = 1.04-16.10) and current oral contraceptive use (aOR = 2.85; 95% CI= 1.14-7.15) were independent predictors for having CIN 2+ at the initial colposcopy. At the median follow- up time of 6.7 months, CIN 2-3 lesions were additionally detected in 2 women. In conclusion, ASC-US cytology in our population has a relatively high prevalence of underlying invasive carcinoma. Nulliparity and current oral contraceptive use are independent predictors for harboring CIN2+.

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