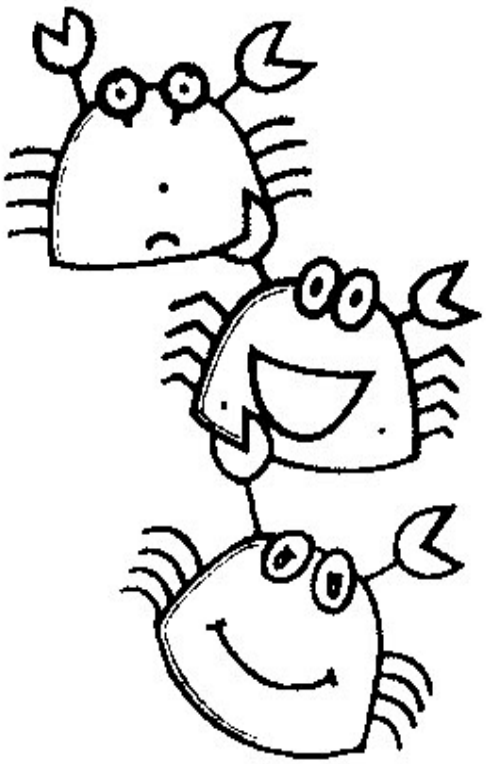
ANNUAL REPORT
ON
GYNECOLOGIC ONCOLOGY
2010



DIVISION OF GYNECOLOGIC ONCOLOGY

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

FACULTY OF MEDICINE, CHIANG MAI UNIVERSITY

CHIANG MAI, THAILAND

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GYNECOLOGIC ONCOLOGY

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WEBSITE : http://www.med.cmu.ac.th/dept/obgyn/Unit/onco/oncofront.htm

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รายงานประจำปี 2553

หน่วยมะเร็งวิทยานรีเวช

ภาควิชาสูติศาสตร์และนรีเวชวิทยา

คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่

อนุสาขามะเร็งวิทยานรีเวช

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คุณทศพล ไชยน้อย

PREFACE

Obstetrics and Gynecology department has three major missions which are teaching, research and service. Every mission needs information for improving the quality. Our department divides into three major subspecialties: maternal fetal medicine, reproductive medicine and gynecologic oncology, and one new subspecialty which is urogynecology unit. Each subspecialty worked hard for improving their mission and has summarized the service part into the annual report. These reports are also publishing the full report on our departmental website. Please visit: http://www.med.cmu.ac.th/dept/obgyn/

This annual report 2010 on gynecologic oncology has been successfully published with great contribution of Assoc. Professor Prapaporn and her colleagues in oncology division. It reflects our gynecologic oncology work and can be used for benchmarking especially for the one who involve in this field. I would like to make an appreciation and expression of thanks to my oncology colleagues for their dedication to our department.

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PREFACE

This Annual Report 2010 is the fourteenth volume of our work in gynecologic oncology. We served around 700 gynecologic cancer patients in 2010 which slightly decreased from the last year's number. The leading cancer is still cervical cancer, followed by ovarian and uterine cancers.

About 125 Wertheim operations were performed in our hospital. In this year the number of the gynecologic cancer in each organ were not different from the last year. Twenty original studies were published in the peer-reviewed journals in 2010.

This report is divided into 2 sections. The first section provides the statistics of all gynecologic cancer patients in the year 2010 in which the data has been accumulated since 1997. The latter section presents the infrastructure, diagnostic procedures and operations in gynecologic cancer, abstracts of the publications and presentation in 2010. This report used the old version of FIGO staging system.

There are a lot of good events happened in 2010. Our group as "Gynecologic Oncology Research Group" received 42.5 million baht funding from the National Research University Project under Thailand's Office of Higher Education Commission and Chiang Mai University to produce many projects of gynecologic cancer research, Dr. Charuwan Saeteng received the great honor award "The Best Research in the Division of Gynecologic Cancer from The Royal Thai College of Obstetricians and Gynecologists 2010 and we have the new staff; Dr. Manatsawee Manopunya who will help us to meliorate our works. In addition, more than twenty gynecologic oncology fellows from other training centers in Thailand and abroad visited our institute for elective courses.

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 gave their big hands to collect and analyze the patient data. All staff in Radiation Oncology, Gynecologic Pathology, Medical Oncology, and Oncology Nursing Divisions consistently collaborated on our patients care. I would like to 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, Assoc. Professor Chanane Wanapirak for his incessant support.

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  - Cancer of the Vulva
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  - Cancer of the Fallopian Tube
  - Gestational Trophoblastic Disease
  - Cancer of the Bartholin gland

TABLE 1 : Gynecologic Oncology Registry :Chiang Mai University 1997-2010

Site	1997 Number (%)	1998 Number (%)	1999 Number (%)	2000 Number (%)	2001 Number (%)	2002 Number (%)	2003 Number (%)	2004 Number (%)	2005 Number (%)	2006 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)
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)
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)
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)
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)
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)
PPA	-	-	2 (0.3)	1 (0.1)	-	2 (0.3)	7 (0.8)	3 (0.4)	4 (0.5)	6 (0.8)
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)
Total	**727 (100)**	**662 (100)**	**660 (100)**	**704 (100)**	**706 (100)**	**748 (100)**	**870 (100)**	**795 (100)**	**791 (100)**	**731 (100)**

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

TABLE 1 : Gynecologic Oncology Registry :Chiang Mai University 1997-2010(continue)

Site	2007 Number (%)	2008 Number (%)	2009 Number (%)	2010 Number (%)
Cervix	480 (63.6)	473 (63.2)	436 (58.1)	449(64.2)
Ovary	132 (17.5)	115 (15.2)	141 (18.8)	105(15.0)
Corpus	91 (12.0)	117 (15.4)	116 (15.5)	94(13.4)
Vulva	11 (1.5)	21 (2.8)	24 (3.2)	20(2.9)
Vagina	6 (0.7)	7 (0.9)	7 (0.9)	12(1.7)
FT	7 (0.9)	4 (0.5)	4 (0.5)	6(0.9)
PPA	11 (1.5)	7 (0.9)	8 (1.1)	-
Batholin gland	-	-	-	1(0.1)
GTT	17 (2.3)	15 (2.0)	14 (1.9)	12(1.7)
Total	**755 (100)**	**759 (100)**	**750 (100)**	**699(100)**

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

Gynecologic Oncology Multiple Primary Cancers : Chiang Mai University 2000-2010

Multiple Primary Cancers	2000 Number	2001 Number	2002 Number	2003 Number	2004 Number	2005 Number	2006 Number	2007 Number	2008 Number	2009 Number	2010 Number
Ovarian and Cervical Cancer	**1**	**2**	**2**	**1**	**1**	**1**	**-**	**-**	**1**	**-**	**-**
Ovarian and Corpus Cancer	**8**	**6**	**7**	**-**	**5**	**13**	**5**	**4**	**8**	**5**	**7**
Corpus and Cervical Cancer	**-**	**-**	**1**	**-**	**-**	**1**	**-**	**1**	**-**	**-**	**-**
Corpus and Fallopian Tube Cancer	**-**	**-**	**1**	**-**	**-**	**-**	**1**	**-**	**-**	**1**	**1**
Corpus and Peritoneal Cancer	**-**	**-**	**-**	**1**	**1**	**1**	**-**	**-**	**-**	**-**	**-**
Corpus and ChorioCA	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**
Cervical and Fallopian Tube Cancer	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**
Ovarian and Fallopian Tube	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**1**	**1**
Ovarian and Fallopian Tube and Corpus Cancer	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**1**	**-**	**-**	**1**
Cervical and Vulva Cancer	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**
Corpus and Colon Cancer	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**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
Surgery for Ovarian & Tubal Cancer	64	43	64	70	45	69	88	79	80	111
Surgery for Corpus Cancer	33	28	26	36	43	39	47	60	75	53
Surgery for Vulvar Cancer	10	14	5	19	12	14	21	19	14	12
Radical hysterectomy	55	77	113	120	116	135	150	151	149	143
Laparoscopic Radical Hysterectomy	-	-	-	-	-	-	-	4	18	21
Radical Parametrectomy	2	2	1	1	1	3	4	1	1	2
Laparoscopic Radical Parametrectomy	-	-	-	-	-	-	-	1	1	3
Extrafacial Hysterectomy	118	110	155	182	121	89	43	35	52	55
Total Laparoscopic Hysterectomy	-	-	-	-	-	-	10	11	9	4
Conization	66	65	79	13	14	22	16	9	10	5
LEEP	61	35	166	207	194	221	380	276	261	309
Cryosurgery	20	15	18	8	4	3	1	-	2	-
Colposcopy	227	235	463	371	369	306	357	399	499	627

LEEP = Loop Electrosurgical Excision Procedure

Operations and Procedures in Gynecologic Oncology (continue)

Operations and Procedures	2007 Number	2008 Number	2009 Number	2010 Number
Surgery for Ovarian & Tubal Cancer	89	95	115	87
Surgery for Corpus Cancer	80	106	83	87
Surgery for Vulvar Cancer	8	21	18	20
Radical hysterectomy	120	121	103	125
Modified RHPL	-	-	18	12
Abandon Hysterectomy	-	-	1	1
Laparoscopic surgical staging for Corpus cancer	-	-	-	6
Laparoscopic Radical Hysterectomy	11	16	5	-
Radical Parametrectomy	1	-	1	-
Laparoscopic Radical Parametrectomy	-	-	-	2
Extrafacial Hysterectomy	47	31	32	40
Total Laparoscopic Hysterectomy	4	2	2	2
Conization	15	6	5	6
LEEP	317	235	175	203
Cryosurgery	-	-	-	-
Colposcopy	519	556	474	409

LEEP = Loop Electrosurgical Excision Procedure

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	7	1.6
31-40	55	12.2
41-50	158	35.2
51-60	142	31.6
61-70	42	9.4
71-80	38	8.5
81-90	7	1.6
Total	**449**	**100.0**

(Not include recurrent cases = 12 cases)

Minimum age 26 years, Maximum age 87 years
Mean age 52.5±11.7 year

TABLE 3 : Cancer of the Cervix : Parity Distribution.

Parity	Number	Percent
0	23	5.1
1	76	16.9
2	188	41.9
3	70	15.6
4	29	6.5
5	30	6.7
6	11	2.4
7	8	1.8
8	1	0.2
9	8	1.8
10	3	0.7
12	1	0.2
13	1	0.2
Total	**449**	**100.0**

TABLE 4 : Cancer of the Cervix: Stage Distribution.

Stage	Number	Percent
I	184	41.0
II	146	32.5
III	98	21.8
IV	21	4.7
Total	**449**	**100.0**

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

	Stage	Number	Percent
I	IA1	30	6.7
	IA2	17	3.8
	IB1	109	24.3
	IB2	28	6.2
II	IIA	40	8.9
	IIB	106	23.6
III	IIIA	4	0.9
	IIIB	94	20.9
IV	IVA	7	1.6
	IVB	14	3.1
Total		**449**	**100.0**

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

Stage	Number Negative (%)	Number Positive HIV(%)	Unknown(%)	Total
IA1	29(6.5)	1(0.2)	0	30(6.7)
IA2	17(3.8)	0	0	17(3.8)
IB1	104(23.2)	4(0.9)	1(0.2)	109(24.2)
IB2	26(5.8)	2(0.4)	0	28(6.2)
IIA	38(8.5)	2(0.4)	0	40(8.9)
IIB	99(22.0)	4(0.9)	3(0.7)	106(23.6)
IIIA	3(0.7)	1(0.2)	0	4(0.9)
IIIB	89(19.8)	5(1.1)	0	95(21.1)
IVA	7(1.6)	0	0	7(1.6)
IVB	13(2.9)	0	1(0.2)	13(2.9)
Total	**425(94.7)**	**19(4.2)**	**5(1.1)**	**449(100)**

TABLE 7 : Cancer of the Cervix : Distribution by Histological Type.

Histological Type	Number	Percent
Squamous cell carcinoma	**353**	**78.4**
Well differentiation	24	5.3
Moderately differentiation	205	45.7
Poorly differentiation	67	14.9
Not define differentiation	57	12.7
Adenocarcinoma	**63**	14.0
Adenosquamous	**16**	3.6
Small cell Neuroendocrine CA	**8**	1.8
PD CA	**1**	0.2
Malignant spindle cell tumor	**1**	0.2
Condylomatous CA	**1**	0.2
AdenoCA with PD part & small composit small cell CA	**1**	0.2
large cell neuroendocrine CA	**1**	0.2
Mixed small cell CA and Squamous cell CA	**1**	0.2
Malignant melanoma	**1**	0.2
Unknown*	**2**	0.4
Total	**449**	**100.0**

* Unknown = refer from other hospitals : data not available
MD = Moderately differentiated
PD = Poorly differentiated
NE = Neuroendocrine
CA = Carcinoma

TABLE 8 : Treatment of cancer of the Cervix.

Treatment	Number	Percent
Surgery alone	**63**	**14.0**
TAH	11	2.4
RHPL	40	8.9
TLH	1	0.2
Extended hysterectomy	11	2.4
Chemotherapy alone	**6**	**1.3**
Radiation alone	**54**	**12.0**
Concurrent chemoradiation	**70**	**15.6**
Concurrent chemoradiation+ Brachytherapy	**58**	**12.9**
RT+Brachytherapy	**51**	**11.4**
Brachytherapy	**3**	**0.7**
Combined treatment	**92**	**20.3**
TAH+CCRT	7	1.6
TAH+CCRT+Brachytherapy	1	0.2
TAH+Pelvic RT	3	0.7
TAH+Pelvic RT+Brachytherapy	2	0.4
RHPL+Brachytherapy	3	0.7
RHPL+RT	15	3.3
RHPL+CCRT	30	6.7
RHPL+CT	4	0.9
Abandoned hysterectomy+CCRT+Brachytherapy	2	0.4
NAC+Abandon Hysterectomy+CCRT+Brachytherapy	1	0.2
NAC+TAH+CCRT	1	0.2
NAC+RHPL	11	2.4
NAC+RHPL+CCRT	4	0.9
NAC+RHPL+CCRT+HDR	2	0.4
NAC+RHPL+RT	6	1.3
Others		
Lost to FU without treatment	15	3.3
Refer to other hospitals for treatment	15	3.3
Awaiting for surgery	13	2.9
Awaiting for Investigation	2	0.4
Awaiting for start RT	6	1.3
Refused of treatment	1	0.2
Total	**449**	**100.0**

RHPL	Radical Hysterectomy and bilateral pelvic lymphadenectomy		
TAH	Total Abdominal Hysterectomy	RT	Radiation Therapy
LRHPL	Laparoscopic Radical Hysterectomy with Pelvic Lymphadenectomy	NAC	Neoadjuvant Chemotherapy
TLH	Total laparoscopic hysterectomy	CT	Chemotherapy
CCRT	Concurrent Chemoradiation		

N.B. Number of RH& BPL = 115 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
<21	7	6.7
21-30	8	7.6
31-40	13	12.4
41-50	29	27.6
51-60	24	22.9
61-70	11	10.5
71-80	12	11.4
>80	1	1.0
Total	**105**	**100.0**

Minimum age 13 years, Maximum age 81 years
Mean age 49.1±15.9 years

Not include recurrent case = 11 cases

TABLE 10 : Cancer of the Ovary : Parity Distribution.

Parity	Number	Percent
0	38	36.2
1	26	24.8
2	28	26.7
3	3	2.9
4	5	4.8
5	2	1.9
6	2	1.9
8	1	1.0
Total	**105**	**100.0**

TABLE 11 : Cancer of the Ovary : Histological Distribution.

Histology	Number	Percent
Epithelium	77	73.3
Germ Cell	18	17.1
Sex cord-stromal	3	2.9
Unknown*	7	6.7
Total	**105**	**100**

*Unknown = No Surgery = 4 cases, Awaiting for Surgery 3 cases

TABLE 12 : Epithelial Ovarian Cancer : Histological Subtype Distribution.

Histological Subtype	Number	Percent
Serous LMP	3	3.9
Serous adenoCA	17	22.1
Mucinous LMP	16	20.8
Mucinous adeno CA	3	3.9
Endometrioid CA	9	11.7
Clear cell CA	18	23.4
Mixed epithelial CA	8	10.4
AdenoCA	2	2.6
Mucinous cystadenoCA arising in mature teratoma	1	1.3
Total	**77**	**100**

LMP = Low malignant potential
CA = carcinoma

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

Histological Subtype	Number	Percent
Dysgerminoma	2	11.1
Immature teratoma	2	11.1
Yolk sac tumor	4	22.2
Carcinosarcoma	2	11.1
Adenosarcoma	1	5.6
Endodermal sinus tumor	1	5.6
Strumal carcinoid with minor benign mucinous differentiated	1	5.6
SCCA MD arising in mature cystic teratoma	5	27.8
Total	**18**	**100.0**

SCCA = Squamous cell carcinoma
MD = Moderate differentiation

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

Subtype	Number	Percent
Adult Granulosa cell tumor	2	66.7
Juvenile Granulosa cell tumor	1	33.3
Total	**3**	**100.0**

TABLE 15 : Epithelial Ovarian Cancer : Stage Distribution.

Stage	Number	Percent
IA at least	1	1.3
IA	16	20.8
IB	2	2.6
IC	23	29.9
IIC	2	2.6
III	2	2.6
IIIA	2	2.6
IIIB	3	3.9
IIIC	18	23.4
IV	8	10.4
Total	**77**	**100.0**

TABLE 16 : Germ Cell Ovarian Cancer: Stage Distribution.

Stage	Number	Percent
IA	3	16.7
IC	5	27.8
IIIA	2	11.1
IIIC	4	22.2
IV	4	22.3
Total	**18**	**100.0**

TABLE 17 : Sex cord-stromal : Stage Distribution.

Stage	Number	Percent
IA	2	66.7
IC	1	33.3
Total	**3**	**100.0**

TABLE 18 : Ovarian Cancer : Stage and Histology Distribution.

	Epithelial	Percent	Germ cell	Percent	Sex cord stromal tumor	Percent
IA at least	1	1.3	0	0.0	0	0.0
IA	16	20.5	3	16.7	2	66.7
IB	2	2.6	0	0.0	0	0.0
IC	23	29.5	5	27.8	1	33.3
IIA	0	0.0	0	0.0	0	0.0
IIB	0	0.0	0	0.0	0	0.0
IIC	2	2.6	0	0.0	0	0.0
III	2	2.6	0	0.0	0	0.0
IIIA	2	2.6	2	11.1	0	0.0
IIIB	3	3.8	0	0.0	0	0.0
IIIC	18	23.4	4	22.2	0	0.0
IV	8	10.3	4	22.3	0	0.0
Total	**77**	**100.0**	**18**	**100.0**	**3**	**100.0**

TABLE 19 : Cancer of the Ovary : Primary Treatment and Adjuvant Chemotherapy.

Treatment	Number	Percent
Complete SSP with adjuvant chemotherapy	23	21.9
Complete SSP without adjuvant chemotherapy	11	10.5
Incomplete SSP with adjuvant chemotherapy	41	39.0
Incomplete SSP without adjuvant chemotherapy	16	15.2
NAC with incomplete SSP with adjuvant chemotherapy	7	6.7
NAC plan to surgery	3	2.9
NAC + interval debulking	1	1.0
NAC lost to Follow up	1	1.0
Chemotherapy alone	2	1.9
Total	**105**	**100.0**

SSP = Surgical Staging Procedure

NAC = Neoadjuvant Chemotherapy

TABLE 20 : Ovarian Cancer : Outcome of Treatment.

Outcome	Number	Percent
Under FU without disease	45	42.9
Under FU with partial response	1	1.0
During treatment	44	41.9
During treatment with progress/persistent of disease	4	3.9
Lost to FU	5	4.8
Supportive & symptomatic treatment	3	2.9
Refer to other hospitals for treatment/FU	3	2.9
Total	**105**	**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 21 : Cancer of the Corpus : Age Distribution.

Age	Number	Percent
<21	1	1.1
21-30	0	0
31-40	1	1.1
41-50	8	8.5
51-60	55	58.5
61-70	20	21.3
71-80	9	9.6
Total	**94**	**100.0**

Minimum age 16 years, Maximum age 79 years
Mean age 57.6±8.8 years

(Not include recurrent case = 2 cases

TABLE 22 : Cancer of the Corpus: Distribution by Menopausal Status.

Menopausal Status	Number	Percent
Yes	75	79.8
No	19	20.2
Total	**94**	**100.0**

TABLE 23 : Cancer of the Uterine Corpus: Distribution by Underlying Medical Diseases.

Medical disease	Number	Percent
None	63	67.0
Hypertension	17	18.1
Hypertension+ DM	8	8.5
DM	3	3.2
Hypertension+ DM+ Dyslipidemia	1	1.1
RHD	1	1.1
Asthma	1	1.1
Total	**94**	**100.0**

DM = Diabetes mellitus
RHD = Rheumatic heart disease

TABLE 24 : Cancer of the Uterine Corpus : Distribution by Parity.

Parity	Number	Percent
0	18	19.1
1	10	10.6
2	34	36.2
3	20	21.3
4	5	5.3
5	3	3.2
6	4	4.3
Total	**94**	**100.0**

TABLE 25 : Cancer of the Uterine Corpus : Distribution by Surgical Staging.

	Stage	Number	Percent
I	IA	27	28.7
	IB	9	9.6
	IC	6	6.4
II	IIA	2	2.1
	IIB	6	6.4
III	IIIA	9	9.6
	IIIC	18	19.1
IV	IVA	1	1.1
	IVB	10	10.6
Unknown*		6	6.4
	Total	**94**	**100.0**

Unknown* = Awaiting for surgery = 2 cases
= Not surgery = 2 cases
= Awaiting for investigation = 1 case
= Refused treatment = 1 case

TABLE 26 : Cancer of the Uterine Corpus : Histologic Distribution.

Histology Type	Number	Percent
Endometrioid adenoCA		
Grade I	25	26.6
Grade II	19	20.2
Grade III	20	21.3
Carcinosarcoma	10	10.6
Adenosarcoma	1	1.1
Leiomyosarcoma	1	1.1
Serous adenoCA	2	2.1
Mixed type	16	17.0
Total	**94**	**100.0**

CA = carcinoma

TABLE 27 : Treatment of Corpus Cancer.

Treatment	Number	Percent
complete SSP	13	13.8
complete SSP+ RT	3	3.2
complete SSP+ CT	12	12.8
complete SSP+ CT+ RT	10	10.6
complete SSP+ CT+Brachytherapy	1	1.1
complete SSP+RT+Brachytherapy	11	11.7
complete SSP+RT+Brachytherapy+CT	1	1.1
complete SSP+Brachytherapy	11	11.7
complete SSP+ Sequential chemo-RT+Brachytherapy	1	1.1
Incomplete SSP	9	9.6
Incomplete SSP+RT	1	1.1
Incomplete SSP+CT	5	5.3
Incomplete SSP+Brachytherapy	3	3.2
Incomplete SSP+RT+Brachytherapy	2	2.1
Incomplete SSP+ CT+ RT	3	3.2
RT alone	1	1.1
CT alone	2	2.1
Awaiting for Surgery	3	3.2
Awaiting for Investigation	1	1.1
Refused Treatment	1	1.1
Total	**94**	**100**

SSP = Surgical Staging Procedure
RT = Radiation Therapy
CT = Chemotherapy

TABLE 28 : Outcome of Treatment of Corpus Cancer.

Outcome	Number	Percent
During treatment	43	45.7
Under FU without disease	42	44.7
Lost to FU with disease	2	2.1
Palliative/symptomatic treatment	1	1.1
Recurence	1	1.1
Died	1	1.1
Refer to other hospitals for further treatment (RT 3, CT 1)	4	4.3
Total	**94**	**100.0**

FU = Follow up

RT = Radiation Therapy

CT = Chemotherapy

Cancer of the Vulva

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

TABLE 29 : Cancer of the Vulva : Age Distribution.

Age	Number	Percent
<41	2	10.0
41-50	8	40.0
51-60	5	25.0
61-70	4	20.0
70-80	0	0.0
>80	1	5.0
Total	**20**	**100.0**

Minimum age 39 year, Maximum age 81
Mean age 52.7± 11.3 year

* vulva intraepithelial neoplasia 2 cases

TABLE 30 : Cancer of the Vulva : Stage Distribution.

Stage	Number	Percent
IB	3	15
II	7	35
III	6	30
IVA	1	5
IVB	2	10
Not stage	1	5
Total	**20**	**100**

Not stage = awaiting for surgery 1 case

TABLE 31 : Cancer of the Vulva : Histological Type Distribution.

Histological Type distribution	Number	Percent
Squamous cell carcinoma		
Well differentiation	10	50
Moderately differentiation	7	35
Poorly differentiation	1	5
Adenocarcinoma	1	5
Small cell carcinoma	1	5
Total	**20**	**100**

TABLE 32 : Treatment of cancer of the vulva.

Treatment	Number	Percent
WLE	2	10
WLE + Pelvic RT	1	5
Radical local excision+ BGND	5	25
Radical hemivulvectomy+ BGND+ CCRT	1	5
Radical hemivulvectomy+BGND+ RT	3	15
NAC plan BGND	1	5
CCRT	2	10
RT	3	15
Refused treatment	1	5
Awaiting for Surgery	1	5
Total	**20**	**100**

WLE = Wide local excision
BGND = Bilateral groin node dissection
RT = Radiation therapy
CCRT = Concurrent chemoradiation
FU = Follow up
NAC = Neoadjuvant Chemotherapy

Cancer of the Vagina

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

TABLE 33 : Cancer of the Vagina 2010.

No	HN	Age	Stage	Histology	Treatment
1	1863270	59	I	SCCA Moderately differentiated	CCRT (WPRT+ Cisplatin)
2	2643897	76	III	SCCA Poorly differentiated	Consult RT > lost to follow up
3	2644484	59	III	SCCA Well differentiated	CCRT (Cisplatin + 5 FU>WPRT+ Vaginal Brachytherapy)
4	3095632	74	II	SCCA Poorly differentiated	Interstitial Brachytherapy
5	3243839	58	I	Malignant melanoma	Wide local excision with BGND+ Vaginal Brachytherapy
6	3245754	62	II	Malignant melanoma	Interstitial Brachytherapy
7	3266426	52	I	Malignant melanoma	Wide local excision with BGND
8	3276750	36	I	SCCA, undifferentiated	Vaginal Brachytherapy
9	3280812	63	I	AdenoCA Well differentiated	CCRT (WPRT+ Brachytherapy + Cisplatin)
10	3295321	50	III	SCCA Poorly differentiated	CCRT (WPRT+ Brachytherapy + Cisplatin)
11	3307264	43	III	Mucinous adenoCA, Well differentiated	CCRT (Radical RT+ Chemo)
12	3323712	59	II	SCCA Well differentiated	Pelvic RT

SCCA = squamous cell carcinoma
RT = radiation Therapy
FU = follow up
BGND = bilateral groin node dissection
WD = well differentiated
MD = moderately differentiated
PD = poorly differentiated

Cancer of the Fallopian Tube

TABLE 34 : Cancer of the Fallopian Tube 2010

Data	Case 1	Case 2	Case 3	Case 4	Case 5
HN	3233811	3265574	3282037	3288309	3302120
Age	59	49	59	50	52
Marital status	married	married	married	married	married
Parity	0	0-0-1-0	2-0-0-2	2-0-0-2	1-0-0-1
Presenting symptoms	abdominal distention	abdominal distention	abdominal pain	abdominal mass	abdominal pain, abnormal bleeding
Stage	IIIC	IA	IIIC	IIA	IIA
Histology	Serous adenoCA, MD	Serous adenoCA, grade III	Serous adenoCA, PD	Serous adenoCA, grade III	Serous adenoCA, MD
Treatment	NAC (PTx3) →TAH &BSO c BPND c PANS c Appendectomy → PTx3 → Gemcitabine	Rt.SO c peritoneal washing (s/p TAH due to myoma uteri year 2007) → PTx6	TAH&BSO c BPND c PANS c peritoneal washing	TAH&BSO >PT	TAH&BSO >PT
Outcome	During Treatment	Under follow up without disease	Under follow up without disease	During Treatment	During Treatment

Data	Case 6
HN	3299894
Age	46
Marital status	married
Parity	0
Presenting symptoms	abdominal pain
Stage	IC
Histology	Endometrioid adenoCA gr.2
Treatment	TAH&BSO →PT
Outcome	During Treatment

CA = Carcinoma
TAH&BSO = Trans abdominal hysterectomy and bilateral salpingooophorectomy
FNA = Fine needle aspiration
NAC = Neoadjuvant chemotherapy
PT = Paclitaxel and Carboplatin
PD = Poorly differentiated
MD = Moderately differentiated
FU = Follow up
Rt = right
SO = salpingo oophorectomy

Cancer of Multiple Primary Gynecologic Organs

TABLE 35 : Cancer of the Multiple Primary Gynecologic Organ 2010

Data	Case 1 CA ovary+ CA Tube	Case 2 CA Corpus+ CA Tube	Case 3 CA Corpus+ CA Ovary
HN	1061802	3247569	3255717
Age	57	59	55
Marital status	married	married	married
Parity	1-0-1-1	3-0-0-0	3-0-0-3
Presenting symptoms	pelvic mass	abnormal bleeding	abnormal bleeding
Stage	CA ovary IA, CA tube IA	CA Corpus IIIC, CA Tube IB	CA Corpus IIIC, CA Ovary IC
Histology	Lt.Ovary: endometrioid adenoCA gr.3 Rt.Tube: Serous adenoCA gr.3	Corpus:Mixed Endometrioid and mucinous adenoCA c focal feature of serous adenoCA gr.I Both Tubes:Mixed mucinous and endometrioid adenoCA	Corpus: Endometrioid adenoCA grade I Ovary: Endometrioid adenoCA grade I
Treatment	TAH&BSO c partial omentectomy c peritoneal washing → PTx4	Complete surgical staging + Sequential Chemo RT (PTx6 → pelvic RT)	Complete staging + Carboplatin x 2 → pelvic RT+Vaginal Brachytherapy → Carboplatin x4
Outcome	Under FU without disease	Under FU without disease	Under FU without disease

Cancer of the Multiple Primary Gynecologic Organs (continue)

Data	Case 4 CA Corpus+ CA Ovary	Case 5 CA Corpus+ CA Ovary	Case 6 CA Corpus+CA Ovary
HN	3267083	3277347	3286323
Age	36	44	50
Marital status	single	married	married
Parity	0	1-0-0-1	0
Presenting symptoms	pelvic pain	abnormal bleeding	pelvic mass
Stage	CA Corpus IA CA Ovary IIC	CA Corpus IIB CA Ovary IIC	CA Corpus IIIA CA Ovary IC
Histology	Corpus: Endometrioid adenoCA grade 1 Ovary: Endometrioid adenoCA grade 1 with minor component of clear cell adenoCA	Corpus: Endometrioid adenoCA grade 3 Rt.ovary: Clear cell adenoCA	Corpus: Endometrioid adenoCA grade 2 with squamous differentiation with microscopic area of clear cell adenoCA Ovary: Endometrioid adenoCA
Treatment	Complete staging → PTx6	RHPL & BSO →PT x6 → pelvic RT	Right SO 14/6/53, TAH&Lt.SO c omental biopsy c peritoneal biopsy → PT x6 → pelvic RT+ vaginal brachytherapy
Outcome	Under FU without disease	During treatment	During treatment

MD = Moderately differentiation
FU = follow up
PT = Paclitaxel and Carboplatin
RT = Radiation therapy
TAH&BSO = Transabdominal hysterectomy and bilateral salpingo-oophorectomy
Gr = grade

Cancer of the Multiple Primary Gynecologic Organs (continue)

Data	Case 7 CA Corpus+CA Ovary:	Case 8 CA Corpus+CA Ovary	Case 9 CA Corpus+CA Ovary
HN	3286751	3310182	3317472
Age	58	56	36
Marital status	single	married	married
Parity	0	3-0-0-2	0
Presenting symptoms	pelvic mass	pelvic pain	abnormal bleeding
Stage	CA Corpus IIA CA Ovary IIA	CA Corpus IIIA CA Ovary IIA	CA Corpus: IIIC CA Ovary: IA
Histology	Corpus: Mixed Endometrioid adenoCA grade 1 and serous adenoCA grade 1 Ovary: Endometrioid adenoCA	Corpus: Endometrioid adenoCA grade 1 Ovary: MD serous adenoCA	Corpus: Endometrioid adenoCA grade 1 Lt.Ovary: Endometrioid adenoCA grade 1
Treatment	Complete staging 31/5/53 + PT x6 + vaginal brachytherapy	TAH&BSO c peritoneal washing → PT x6 → pelvic RT	Complete surgical staging + Sequential Chemo RT
Outcome	During treatment	During treatment	During treatment

Cancer of the Multiple Primary Gynecologic Organs (continue)

Data	Case 10 CA Cervix+CA Vulva	Case 11 CA Cervix+CA Vulva	Case12 CA Corpus+CA Colon
HN	3300001	3283107	3051112
Age	74	74	50
Marital status	married	married	married
Parity	15-0-0-13	9-0-0-7	1-0-0-1
Presenting symptoms	abnormal Pap	Discharge per vagina	abnormal bleeding per vagina
Stage	CA Cervix IIA CA Vulva III atleast	CA Cervix IIA CA Vulva I	Corpus: IA Colon: T3N0M0
Histology	Cervix: MD Squamous cell carcinoma Vulva: Squamous cell carcinoma	Cervix: Squamous cell carcinoma Vulva: Squamous cell carcinoma	Corpus: Endometrioid adenoCA grade 1 Colon: MD adenoCA
Treatment	Pelvic RT+ Brachytherapy	-	TAH&BSO & Subtotal colectomy
Outcome	During treatment	Lost to follow up	Under FU without disease

FU = follow up
MD = moderately differentiation
PT = Paclitaxel and Carboplatin
RT = radiation therapy

Cancer of the Multiple Primary Gynecologic Organs (continue)

Data	Case 13 CA Corpus+ CA Ovary+ CA tube
HN	3258363
Age	59
Marital status	married
Parity	3-0-2-3
Presenting symptoms	pelvic mass
Stage	CA Corpus IIB CA Ovary IC CA Tube IA
Histology	Corpus: MD serous adenoCA Lt.Ovary: MD serous adenoCA Tube: Intraepithelial CA
Treatment	TAH&BSO c appendectomy
Outcome	Died

TAH&BSO	Transabdominal hysterectomy and bilateral salpingo-oophorectomy
WD	Well differentiation
PD	Poorly differentiation
MD	Moderately differentiation
RT	Radiation therapy
CA	carcinoma

Gestational Trophoblastic Disease

- Gestational Trophoblastic Tumor
- Molar Pregnancy

TABLE 36 : Gestational Trophoblastic Tumors in 2010.

No	HN	Age (yr)	Initial HCGtiter	Prognosis Classification	Diagnosis	FIGO	Treatment	Result
1	3250884	35	53,301	NMGTT	Choriocarcinoma (Patho from TAH)	I	MTX x6 >Act D x3 > EMA x3 > EMA-CO x1 > PI x 3 > 5FU+ Act D x 3 > TAH > PT	Under treatment
2	3258891	39	150,400	NMGTT	Persistent mole (Patho from S&C)	I	MTX x7	Remission
3	3266849	23	1,814	NMGTT	Persistent mole (Patho from S&C)	I	MTX x6	Remission
4	3267688	23	164,710	NMGTT	Choriocarcinoma (Patho from D&C)	I	EMA x4	Lost to FU
5	3268736	26	931,348	MGTT (lung, vagina)	Choriocarcinoma	III	EMAx3 > EMAx1 > EMA-EP x4 > PI x3 > single Taxol	Under Treatment
6	3270085	42	33,412	MGTT (lung)	Persistent mole (Patho from S&C)	III	EMAx7	Remission
7	3275148	50	>100,000	NMGTT	Persistent mole (Patho from S&C)	I	MTX+FA x7 >Act Dx1> TAH&BSO 27/10/53	Remission
8	3280290	47	8,000 (post S&C)	NMGTT	Persistent mole (Patho from S&C)	I	MTX+FA x5	Remission
9	3285026	24	5,033 (post D&C)	NMGTT	Persistent mole (Patho from D&C)	I	MTX+FA x6	Remission
10	3319210	31	5636 (post S&C)	NMGTT	Persistent mole (Patho from S&C)	I	MTX+FA x3	Under Treatment
11	3316518	31	178 (post D&C)	NMGTT	Persistent mole (Patho from D&C)	I	MTX+FA x2	Under Treatment
12	3249140	28	Molar pregnancy failed MTXx10 BHCG post MTX 90	NMGTT	Persistent mole (Patho from D&C)	I	Act Dx6	Remission

MGTN = Metastatic Gestational Trophoblastic tumor
NMGTN = Non-metastatic Gestational Trophoblastic tumor
EMA = Etoposide + Methotrexate + Actinomycin D
EMA-Co = Etoposide + Methotrexate + Actinomycin D + Cyclophosphamide+ Vincristine
EMA-EP =
Act D = Actinomycin D
MTX + FA = Methotrexate + Folinic Acid
D&C = dilatation curettage
S&C = suction curettage
PI = Cisplatin + Ifosfamide
PT = Taxol + Carboplatin

TABLE 37 : Molar Pregnancy in 2010.

No	HN	Age	Gravida	GA (wk)	UT Size (wk)	HCG titer	Risk	Treatment	Pathology	Result
1	3154214	26	0-0-1-0	12	12	9,981	Low risk	Evacuation & curettage	Partial hydatidiform mole	Remission
2	3264537	34	2-0-0-2	3 mo.	10	972.8	Low risk	Evacuation & curettage >MTX x6	Invasive mole	Remission
3	3280290	47	1-0-0-1	12+5	12	327,355	High risk	S&C	Complete hydatidiform mole	Persistent mole
4	2353521	50	1-0-1-1	77	12	18,857	High risk	Evacuation &light curettage	Complete hydatidiform mole	Persistent mole
5	3294796	34	0	11	16	750,031	High risk	S&C	Complete hydatidiform mole	Remission

FU = Follow up
UT = Uterine
GA = Gestational age
GTN = Gestational Trophoblastic Neoplasia

Cancer of the Bartholin gland

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

TABLE 38 : Cancer of the Bartholin gland 2010.

No	HN	Age	Stage	Histology	Treatment
1	3282568	58	IVA	Pooly differentiated adenoCA	Debulking bilateral groin LN → Cisplain+ 5FUx2 → WPRT+Vaginal brachytherapy

RT = Radiation therapy

SECTION II

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

Medical Personnel and Facilities

TABLE 39 : Medical Personnel and Facilities in Division of Gynecologic Oncology, Chiang Mai University

Personnel and Facilities	Number
Medical Doctor	9
General Nurse	25
Practical Nurse	18
Helper	11
Research Nurse	2
Research Assistant	1
Inpatient Bed	50
One day chemo Bed	20
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

- Suparuek Pongsaranantakul, M.D.

2nd Year Fellow

- Korapin Radtanasadjatum, M.D.

Visiting Fellow - Sitthysack Panyavatthanasinh (Laos PDR)

Radiation Oncologists

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

Gynecologic Pathologists

1. Associate Professor Sumalee Siriaunkgul, M.D.
2. Associate Professor Surapan Khunamornpong, M.D.
3. Associate Professor. Jongkolnee Settakorn, M.D.
4. Assistant Professor. 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 40 : Diagnostic Procedures and Operations for Cervical Neoplasia.

Procedures & Operations	Number
Colposcopy	409
LEEP	203
Cervical Conization	6
TLH	2
Simple Hysterectomy	40
Extended Hysterectomy &PL	12
Abandoned Radical Hysterectomy & PL	1
Laparoscopic Radical Hysterectomy & PL	-
Radical Hysterectomy & PL	125

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

TABLE 41 : Operations for Ovarian, Corpus and Vulvar Cancer.

Operations	Number
CRS for Ovarian Cancer	81
CRS for Fallopian Tube Cancer	6
CRS for Peritoneal Cancer	-
Surgical Staging for Corpus Cancer	87
Simple hysterectomy for GTT	2
Wide Local Excision & BGND for Vulvar Cancer	5
Radical Hemivulvectomy & BGND for Vulvar Cancer	2
Radical vulvectomy & BGND for Vulvar Cancer	4
Radical Local Excision & BGND for Vulvar Cancer	7
Bilateral Groin Node Dissection for Vulvar Cancer	2

CRS = Cytoreductive Surgery
BGND = Bilateral Groin Node Dissection

PUBLICATIONS & PRESENTATIONS

1997-2009

1. **Thermal injury in cervical specimens obtained from loop electrosurgical excision procedure**
   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**
   Authors: Ployleumsaeng D, Srisomboon J, Phongnarisorn C, Suprasert P
   Published in: Chiang Mai Medical Bulletin 1998; 37 (1-2): 1-5

5. **Molar pregnancy in hilltribe thai people : problems and management**
   Authors: Srisomboon J, Ployleumsaeng D, Phongnarisorn C, Suprasert P, Puntusart A
   Published in: Bulletin of the Department of Medical Services 1999; 24: 44-49

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
   Published in: Thai Journal of Obstetrics and Gynaecology 1999; 11:17-22

8. **Management of patients with positive margins after cervical conization: A review**
   Authors: Suprasert P, Srisomboon J
   Published in: Thai Journal of Obstetrics and Gynaecology 1999; 11: 53-60

9. **Significance of surgical margin status in cervical specimens obtained from loop electrosurgical excision procedure (LEEP)**
   Authors: Suprasert P, Srisomboon J, Siriaunkgul S, Ruangrongmorakot K, Phongnarisorn C
   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**
    Auhtors: Srisomboon J, Suprasert P, Phongnarisorn C
    Published in: Thai Journal of Obstetrics and Gynaecology 1999; 11 (Suppl.1): 69-74

11. **Clear cell carcinoma of the ovary**
    Authors: Manusirivithaya S, Charoeniam V, Isariyodom P, Srisomboon J, Pantusart A, Sheanakul C, et al
    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.
    Published in: Journal of Obstetrics and Gynaecology Reseach 2000; 26(3): 175-80.

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
Published in: Thai Journal of Obstetrics and Gynaecology 2000; 12(2): 141-4

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: Suprasert P, Phongnarisorn C, Charoenkwan K, Cheewakriangkrai C, Siriaree S, Kietpeerakool C, Tantipalakorn C, Srisomboon J.
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109. The characteristics and perioperative outcomes of human immunodeficiency viral infected-women undergoing loop electrosurgical excision procedure for cervical neoplasia
Authors: Kietpeerakool C, Natee J, Injumpa N, Suprasert P, Srisomboon J
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110. Outcomes of combination therapy in early and locally advanced stage small cell neuroendocrine carcinoma of cervix
Authors: Cheewakriangkrai C, Suprasert P, Srisomboon J, Khunamornpong S, Siriaunkgul S
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111. The 20 steps of radical hysterectomy for the beginners in gynecologic cancer operation
Author: Srisomboon J
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112. What we have learned from over 1500 radical hysterectomy operations in Chiang Mai University Hospital: Part 1
Authors: Srisomboon J, Suprasert P, Phongnarisorn C, Charoenkwan K, Siriaree S, Cheewakriangkrai C, SaeTeng C, Kietpeerakool C, Siriaunkgul S, Khunamornpong S
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113. What we have learned from over 1500 radical hysterectomy operations in Chiang Mai University Hospital: Part 2
Authors: Srisomboon J, Suprasert P, Phongnarisorn C, Charoenkwan K, Siriaree S, Cheewakriangkrai C, SaeTeng C, Kietpeerakool C, Siriaunkgul S, Khunamornpong S
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114. 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
Authors: Suprasert P, Kietpeerakool C, Khunamornpong S, Siriaunkgul S
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Authors: Suprasert P, Charoenkwan K, Cheewakriangkrai C, Kietpeerakool C, Siriaree S, Sae-Teng C, Phongnarisorn C, Srisomboon J
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116. Recurrence patterns after radical hysterectomy for stage Ib1-IIa cervical carcinoma
Authors: Sittidilokratna K, Cheewakriangkrai C, Siriaunkgul S, Khunamornpong S, Suprasert P, Srisomboon J
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117. Histopathology of women with atypical squamous cells of undetermined significance cytology in a region with high incidence of cervical cancer
Authors: Kantathavorn N, Kietpeerakool C, Suprasert P, Srisomboon J, Khunamornpong S, Nimmanhaeminda K, Siriaunkgul S
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118. Hydronephrosis after radical hysterectomy: A prospective study
Authors: Suprasert P, Suriyachai P, Euathrongchit J, Srisomboon J, Charoenkwan K, Kietpeerakool C, Cheewakriangkrai C, Siriaree S, Sae-teng C, Phongnarisorn C
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119. The randomized study of continued versus abandoned radical hysterectomy in intra-operative positive pelvic node(s) cervical cancer patients: The preliminary report
Authors: Suprasert P, Srisomboon J, Charoenkwan K, Kietpeerakool C, Cheewakriangkrai C, Siriaree S, Siriaunkgul S, Khunamornpong S, Sae-teng C, Phongnarisorn C
Presented at: The 12th Biennial International Gynecological Cancer Society Meeting (IGCS), Bangkok, Thailand, October 25-28, 2008

120. Three pelvic nodes involvement in figo stage ia1 squamous cervical cancer patient with only 1 lympho-vascular involvement: A case report
Authors: Suprasert P, Kietpeerakool C, Khunamornpong S, Siriaunkgul S
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121. Lymphovascular space invasion as a prognostic indicator in non-obese women with endometrial endometrioid adenocarcinoma
Authors: Panggid K, Cheewakriangkrai C, Suprasert P, Srisomboon J, Khunamornpong S, Siriaungkul S
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122. Primary malignat perivascular epitheloid cell tumor of the round ligament treated with laparoscopic radical excision: A case report
Authors: Phongnarisorn C, Siriaree S, Khunamornpong S, Pattamapaspong N, Pojcharnarnwiputh S, Srisomboon J
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Authors: Phongnarisorn C, Chinthakanan O, Sillapa O, Junthasopeepun P
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Authors: Kietpeerakool C, Suprasert P, Srisomboon J
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Authors: Kietpeerakool C, Srisomboon J
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Authors: Kietpeerakool C, Phianmongkol Y, Jitavatcharanun K, Siriratwatakul U, Srisomboon J
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Authors: Chancham A, Kietpeerakool C, Khunamornpong S, Suprasert P, Srisomboon J, Charoenkwan K, Phongnarisorn C, Cheewakriangkrai C, Siriaree S, Tantipalakorn C
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Authors: Pongsaranantakul S, Kietpeerakool **C**
Published in: Asian Pacific Journal of Cancer Prevention 2009;10:311-4

131. Perioperative complications of an outpatient loop electrosurgical excision procedure: A review of 857 consecutive cases
Authors: Sutthichon P, Kietpeerakool **C**
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Authors: Suprasert P, Euathrongchit J, Suriyachai P, Srisomboon J
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Authors: Suprasert P, Panyaroj W, Kietpeerakool C
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Authors: Phongnarisorn C, Khunamronpong S, Pattamapaspong N, Srisomboon **J**
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Authors: Tantipalakorn C, Khunamornpong S, Lertprasertsuke N, Tongsong T
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Authors: Suprasert P, Charoenkwan K, Cheewakriangkrai C, Kietpeerakool C, Siriaree s, Sae-teng C, Phongnarisorn c, Srisomboon J
Presented at: The 24th Annual Scientific Meeting of the RTCOG, October 19-22, the Royal Golden Jubilee Building, Bangkok, Thailand

PUBLICATIONS & PRESENTATIONS

2010

Colposcopy audit for improving quality of service in areas with a high incidence of cervical cancer

Manatsawee Manopunya, Prapaporn Suprasert, Jatupol Srisomboon, Chumnan Kietpeerakool

Objective: To audit routine colposcopy performance using 8 standard requirements of the National Health Service Cervical Screening Programme (NHSCSP).

Methods: Records of women who underwent colposcopy for abnormal cervical cytology between January and December 2008 at Chiang Mai University Hospital, Thailand, were reviewed.

Results: The standard requirements were not achieved in 2 practices: (1) the proportion of women who had recordings of visibility of the transformation zone (96.6%) did not achieve the NHSCSP requirement of 100%; and (2) the rate of excisional biopsy (87.8%) was lower than the 95% minimum required.

Conclusion: Colposcopic performance at Chiang Mai University Hospital was generally favorable. However, re-audit is necessary to ensure that unmet standards of performance are improved

Published in: International Journal of Gynecology and Obstetrics 2010;108(1):4-6.

"Top hat" versus conventional loop electrosurgical excision procedure in women with a type 3 transformation zone

Chumnan Kietpeerakool, Prapaporn Suprasert, Surapan Khunamornpong, Kornkanok Sukpan, Jongkolnee Settakorn, Jatupol Srisomboon.

Objective: To compare the "top-hat" and conventional loop electrosurgical excision procedures (LEEP) performed in women with a type 3 transformation zone to assess the rate of endocervical margin involvement.

Methods: Women with a type 3 transformation zone randomly allocated into the conventional (n=94) and top-hat LEEP (n=86) groups were analyzed.

Results: The rate of endocervical margin involvement in the top-hat group was lower than that in the conventional group (32.6% vs 53.2%; RR 0.36; 95% CI, 0.19-0.68; P=0.003). Among women with positive endocervical margins, women undergoing top-hat LEEP were less likely to have residual lesions compared with those in the conventional group (52.2% vs 84.1%, respectively, P=0.04). There was no significant difference in the complication rate between the top-hat and conventional groups (7.0% vs 10.6%, respectively, P=0.39).

Conclusion: Top-hat LEEP performed in women with a type 3 transformation zone reduces the risks of endocervical margin involvement and residual diseases compared with conventional LEEP, with no significant difference in perioperative complications.

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High-grade histologic lesions in women with low-grade squamous intraepithelial lesion cytology from a region of Thailand with a high incidence of cervical cancer

Rattapon Kiatiyosnusorn, Prapapron Suprasert, Jatupol Srisomboon, Sitthicha Siriaree, Surapan Khunamornpong, Chumnan Kietpeerakool

Objective: To evaluate the prevalence of and predictors for underlying significant lesions in women with low-grade squamous intraepithelial lesion (LSIL) smears.

Methods: Records were retrospectively reviewed for 208 women with LSIL who underwent colposcopy and histological evaluation from October 2004 through April 2009.

Results: Mean age of the patients was 38.5 years. Forty-four (21.2%) women were nulliparous; 20 (9.6%) women were postmenopausal; 29 (13.9%) women tested positive for HIV. Thirty-three (15.9%) women were current users of combined oral contraceptive pills. The pathological results of initial colposcopic evaluations were: 63 (30.3%) with cervical intraepithelial neoplasia (CIN) 2-3; 62 (29.8%) with CIN 1; 4 (1.9%) with cervical cancer; and 79 (38.0%) with no epithelial lesion. Current use of combined oral contraceptive pills, a positive HIV test, and multiparity were significant independent predictors for high-grade disease.

Conclusion: Approximately one-third of women with LSIL in our population have underlying significant lesions. Current use of combined oral contraceptive pills, a positive HIV test, and multiparity are significant predictors for high-grade lesions.

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Carcinosarcoma arising in uterine didelphys after tamoxifen therapy for breast cancer: a case report

Prapapron Suprasert, Surapan Khunamornpong

The occurrence of uterine cancer in breast cancer patients who received tamoxifen treatment, is well described. 72 our knowledge, an association between uterine anomaly and uterine carcinosarcoma in these patients had not been reported. We present a case of uterine carcinosarcoma occurring in uterine didelphys of a 72-year-old breast cancer patient, who had been treated with tamoxifen for 5 years. The patient presented with large pelvic mass. The uterine anomaly was not recognized preoperatively. The patient died of disease 5 months after diagnosis. Postmenopausal women taking tamoxifen should be closely monitored for symptoms of endometrial lesions

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Sexual function after loop electrosurgical excision procedure for cervical dysplasia

Namphon Inna, Yupin Phianmongkol, Kittipat Charoenkwan

Introduction: Loop electrosurgical excision procedure (LEEP) is an effective tool for management of cervical dysplasia. However, removal of a part of the cervix might have a negative impact on sexual function.

Aim: To examine the effect of LEEP on overall sexual satisfaction and other specific aspects of sexual function in women with cervical dysplasia.

Methods: Eighty-nine premenopausal women with cervical dysplasia who had undergone LEEP at least 3 months previously were interviewed once on post-LEEP follow-up visits with a questionnaire on pre- and post-procedural sexual function. Data on frequency of sexual intercourse, the presence of dysmenorrhea, dyspareunia, and postcoital bleeding were compared using the McNemar test. Data on specific aspects of sexual function rated by the 6-point Likert scale were analyzed using Wilcoxon signed ranks test.

Main outcome measure: The main outcome is the overall sexual intercourse satisfaction. Results: The mean age was 41.7 years. The median interval from LEEP to the time of interview was 29.3 weeks. The time of resumption of sexual intercourse after LEEP was 8.1 weeks on the average. The changes in the frequency of sexual intercourse, dysmenorrhea, and dyspareunia after LEEP were not statistically significant. The changes in overall satisfaction, vaginal elasticity, and orgasmic satisfaction appeared statistically significant ($P < 0.05$).

Conclusion: Having LEEP done along with other "non-surgical" parts of cervical pre-cancer management is associated with small but statistically significant decreases in overall sexual satisfaction, vaginal elasticity, and orgasmic satisfaction when interviewed near to the procedure at 29.3 weeks post-operation. However, the changes on other aspects of sexual function are insignificant. The LEEP procedure itself appears to have a minimal, if any, clinically important adverse effect on sexual function.

Published in: Journal of Sexual Medicine 2010; 7(3): 1291-7.

Retroperitoneal drainage versus no drainage after pelvic lymphadenectomy for the prevention of lymphocyst formation in patients with gynaecological malignancies

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Background: Pelvic lymphadenectomy is associated with significant complications including lymphocyst formation and related morbidities. Retroperitoneal drainage using suction drains has been recommended as a method to prevent such complications. However, this policy has been challenged by the findings from recent studies.

Objectives: To assess the effects of retroperitoneal drainage versus no drainage after pelvic lymphadenectomy on lymphocyst formation and related morbidities in gynaecological cancer patients.

Search strategy: We searched the Cochrane Gynaecological Cancer Specialised Register, the Cochrane Central Register of Controlled Trials (CENTRAL, Issue 2, 2009) in The Cochrane Library, electronic databases (MEDLINE, EMBASE), and the citation lists of relevant publications. The latest searches were performed on 14 May 2009.

Selection criteria: Randomised controlled trials (RCTs) that compared the effect of retroperitoneal drainage versus no drainage after pelvic lymphadenectomy in gynaecological cancer patients. Retroperitoneal drainage was defined as placement of passive or active suction drains in pelvic retroperitoneal spaces. No drainage was defined as no placement of passive or active suction drains in pelvic retroperitoneal spaces.

Data collection and analysis: We assessed studies using methodological quality criteria. For dichotomous data, we calculated risk ratios (RRs) and 95% confidence intervals (CIs). We examined continuous data using weighted mean difference (WMD) and 95% CI.

Main results: Considering the short-term outcomes (within four weeks after surgery), retroperitoneal drainage was associated with a comparable rate of overall lymphocyst formation when all methods of pelvic peritoneum management were considered together (two studies, 204 patients; RR 0.76, 95% CI 0.04 to 13.35). When the pelvic peritoneum was left open, the rates of overall lymphocyst formation (one study, 110 patients; RR 2.29, 95% CI 1.38 to 3.79), and symptomatic lymphocyst formation (one study, 137 patients; RR 3.25, 95% CI 1.26 to 8.37) were higher in the drained group. At 12 months after surgery, the rates of overall lymphocyst formation were comparable between the groups (one study, 232 patients; RR 1.48, 95% CI 0.89 to 2.45). However, there was a trend toward increased risk of symptomatic lymphocyst formation in the group with drains (one study, 232 patients; RR 7.12, 95% CI 0.89 to 56.97)

Authors' conclusions: Placement of retroperitoneal tube drains has no benefit in prevention of lymphocyst formation after pelvic lymphadenectomy in patients with gynaecological malignancies. When the pelvic peritoneum is left open, the tube drain placement is associated with a higher risk of short and long-term symptomatic lymphocyst formation.

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Twelve years experience with radical hysterectomy and pelvic lymphadenectomy in early stage cervical cancer

Prapaporn Suprasert, Jatupol Srisomboon, Kittipat Charoenkwan, Sitthicha Siriaree, Chalong Cheewakriangkrai, Chumnan Kietpeerakool, Chailert Phongnarisorn, Charuwan Sae-Teng

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The objective of this study was to evaluate the outcome, prognostic factors and complications of early stage cervical cancer patients treated with radical hysterectomy and pelvic lymphadenectomy (RHPL). The medical records of cervical cancer patients undergoing RHPL at Chiang Mai University Hospital over 12 years, between January 1995 and December 2006 were reviewed. There were 1,253 patients in the study period. The mean age was 44 years of age. Of these, 26.9% had prior diagnostic conisation. The maximum tumour size was 8 cm. The most common histology was squamous cell carcinoma (67%) followed by adenocarcinoma (23%). The distribution of FIGO staging was: stage IA 8.7%; stage IB 15.8%; stage IB1 61%; stage IB2 6.2%; and stage IIA 8.5%. Pelvic nodes, parametrial and vaginal margin involvement were detected in 15.9%, 10.7% and 3.8% of the patients, respectively. A total of 66.5% of patients underwent RHPL without adjuvant treatment; 12.1% received neoadjuvant chemotherapy. The estimated 10-year recurrence-free survival rate was 90%. Stage IB2/IIA, non-squamous cell carcinoma, nodal involvement and positive vaginal margins were independent, significant, poor prognostic factors. The most common long-term complication was lymphoedema. It was concluded that early stage cervical cancer patients treated with RHPL have long-term favourable outcome with minimal morbidity. Stage IB2 and IIA, non-squamous cell carcinoma, nodal and vaginal involvement were independent adverse prognostic factors

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Correlation of mast cell density, tumor angiogenesis, and clinical outcomes in patients with endometrioid endometrial cancer

Pokpong Pansrikaew , Chalong Cheewakriangkrai, Mana Taweevisit, Surapan Khunamornpong, Sumalee Siriaunkgul

Background: This study was conducted to determine correlations between among mast cell density, tumor angiogenesis, and clinical outcomes in patients with endometrioid adenocarcinoma of endometrium.

Methods: Histologically, four-micrometer-thick haematoxylin and eosin stained slides of hysterectomy specimens were evaluated. Microvessels were highlighted by CD31 immunostaining and mast cells were stained with 0.1% toluidine blue. All clinicopathological characteristics were reviewed to determine their possible correlation to microvessel density and number of mast cells.

Results: A total of 46 patients who underwent a complete staging surgery were eligible for this study. The median age was 55 years (range, 32-70 years) and the median follow-up was 27.0 months (range 3.6-83.8). Microvessels appeared to correlate to some extent with parity and the mean count was likely to be higher in women with non-menopausal status (p=0.07), advanced FIGO stage (p=0.09), and lymph node metastasis (p=0.08). However, there was no significant correlation between microvessel counts, mast cell density, and disease recurrence.

Conclusion: Our data suggest that the number of microvessel counts and mast cell density do not affect clinical progression or recurrence of endometrioid endometrial cancer

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Recurrence patterns after radical hysterectomy in stage IB1-IIA cervical cancer

Kriengkrai Sittidilokratna, Chalong Cheewakriangkrai, Surapan Khunamornpong, Sumalee Siriaunkgul

Objectives: The purpose of this study was to evaluate the patterns of recurrence and its associated factors in stage IB1-IIA cervical cancer cases after radical hysterectomy.

Methods: We retrospectively reviewed the 655 medical records of patients with cervical cancer who underwent radical surgery at Chiang Mai University Hospital between January 2003 and December 2006. All patients had a type III radical hysterectomy and complete systematic bilateral pelvic lymphadenectomy. Post-operative adjuvant pelvic radiation therapy was given concurrently with weekly cisplatin 40 mg/m2 for 6 cycles to patients with at least one major risk or two intermediate-risk factors. Sites of disease recurrence, time to relapse of disease, and postoperative overall survival were analyzed and all possible clinicopathological factors related to the risk of recurrence were determined.

Results: The median time to recurrence was 11.5 months (range, 2-45 months). There was no significant differences in the mean time to recurrence between local and distant recurrence groups (14.6∓ 3.9 months vs. 16.2∓ 5.3 months; p=0.632). The 3-year survival rates of patients with local and distant recurrences were 67.6% (95%CI=45.6 to 89.6%) and 39.8% (95%CI=11.8 to 67.8%), respectively (p=0.602). Tumor size was the only clinicopathological prognostic factor associated with overall survival.

Conclusion: Patients with stage IB1-IIA cervical cancer should have close surveillance during the first two years of radical surgery. Tumor size of greater than 2 cm at the time of primary surgery appears to be significantly related to the prognosis of patients with recurrence. With an understanding of the natural history of cervical cancer recurrence, an optimal method of follow-up and prospective clinical trial for markers of metastatic potential to detect recurrence need to be conducted in the future

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Evaluation of preventing chemotherapy induced oral mucositis project in patients with cancer of the female reproductive system at maharaj nakorn chiang mai hospital, Thailand

Yupin Phianmongkhol, Jatupol Srisomboon, Marayart Na Nakorn

This study aimed to evaluate the prevention of chemotherapy-induced oral mucositis project in female reproductive system cancer patients at Maharaj Nakorn Chiang Mai Hospital. The clinical practice guidelines evaluation model of the Registered Nurses Association of Ontario (RNAO, 2002) was used as a framework. The subjects included 14 nurses and practical nurses, and 404 patient reports. Data were collected by using of two forms developed by the researcher; the nurses' opinion form about the project's implementation and a mucositis form. Data analysis was conducted using frequency, percentage, and mean. The findings showed that 92.9 % of the subjects reported that they could consistently follow the clinical practice guidelines. All of them (100.00 %) agreed that the clinical practice guidelines were easily to follow, convenient to use, had good outcome, reduced nursing time, and were satisfied with this project. After the project's implementation, it was found that mucositis was reduced from 22.0 % to 9.9 %. The results of this study confirm that with the prevention chemotherapy-induced oral mucositis project for female reproductive system cancer patients, care is more efficient. These results could be extended for use in other similar settings

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Is the “see and treat approach” approach appropriate for management of women with abnormal cervical cytology in Thailand?

Chumnan Kietpeerakool, Jatupol Srisomboon

At present, the “see and treat approach” for women with abnormal cervical cytology is widely accepted. It has been proven to be more cost-effective than conventional management, making it particularly attractive for many regions in Thailand where resources are limited and poor patients’ compliance is expected. However, the main disadvantage of the “see and treat approach” is the risk of overtreatment. National Health Service (NHS) guidelines recommend that the overtreatment rate in the “see and treat approach” must be less than 10%. The overtreatment rate appears to be acceptable if the “see and treat approach” is carried out in women with high-grade squamous intraepithelial lesion (HSIL) cytology or in women with lesser grades of smear abnormality whose colposcopic findings suggest high-grade disease.

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Factors related to recurrence in non-obese women with endometrial endometrioid adenocarcinoma

Kannika Panggid, Chalong Cheewakriangkrai, Surapan Khunamornpong and Sumalee Siriaunkgul

Aim: To evaluate the clinicopathological factors associated with recurrence of disease in non-obese women with endometrial endometrioid adenocarcinoma.

Methods: Medical records of the 138 patients who had newly diagnosed endometrial endometrioid adenocarcinoma with body mass index (BMI) <25 and underwent a complete staging surgery between 1999 and 2007 were reviewed.

Results: The median age was 55 years (30–75 years). The median BMI was 21.3 (14.0–25.0). The International Federation of Gynecology and Obstetrics (FIGO) (1988) stages of the patients were as follows: 11 (8.0%) Ia, 30 (21.7%) Ib, 23 (16.7%) Ic, 5 (3.6%) IIa, 13 (9.4%) IIb, 12 (8.7%) IIIa, 2 (1.4%) IIIb, 38 (27.5%) IIIc, 4 (2.9%) IVb. Lymphovascular space invasion (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 histological grade ($P = 0.006$), and deep uterine invasion ($P < 0.0001$). The presence of LVSI, poor histological grade, and advanced stage were found significantly in patients who had disease recurrences ($P = 0.026$, $P < 0.001$, and $P = 0.015$, respectively). Patients with LVSI, when stratified by FIGO stage, had a significant lower 5-year overall survival rate (58.8% versus 76.3%, log–rank test, $P = 0.04$).

Conclusion: LVSI, poor histological grade, and advanced stage were associated with disease recurrence in non-obese women with endometrial endometrioid adenocarcinoma. Non-obese patients with LVSI-positive tumors tend to have a poorer survival rate than obese patients with LVSI-positive tumors.

Published in: Journal of Obstetrics and Gynaecology Research 2010; 36(5): 1044–1048

Treatment of high-grade squamous intraepithelial lesions in an area of Thailand with a high incidence of cervical cancer

Intira Sriprasert, Chumnan Kietpeerakool, Chalong Cheewakriangkrai, Sitthicha Siriaree,

Charawan Tantipalakorn, Jatupol Srisomboon

Objective: To audit the treatment of high-grade squamous intraepithelial lesions (HSILs) at Chiang Mai University Hospital based on 12 standard requirements of the National Health Service Cervical Screening Programme.
Methods: Records were reviewed of all women with histologically proven HSIL undergoing treatment at Chiang Mai University Hospital between January 2005 and May 2009.
Results: Four of the standard requirements were not met: not all women underwent colposcopy before definitive treatment; the rate of specimen fragmentation was high; among women with ectocervical lesions, the rate of tissue removal to a depth of greater than 7mm was low; and among women aged over 50years with endocervical-margin involvement, the rate of repeat excision was low.
Conclusion: This audit highlights four treatment practices that do not meet standard requirements and require detailed exploration. The development of guidelines for the treatment of cervical precancerous lesions in Thailand is challenging and merits further attention.

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A simplified technique for nerve-sparing type III radical hysterectomy: By reorganizing their surgical sequence, surgeons could more easily identify key nerves

Kittipat Charoenkwan

Nerve-sparing radical hysterectomy was developed in an attempt to minimize complications, including bladder, colorectal, and sexual dysfunction which are associated with disruption of the pelvic autonomic nerves during resection of the parametrium. In this article, the author proposes a simple, effective technique for identification and preservation of the pelvic nerves during type III radical hysterectomy. The essential technical considerations include the sequential approach to parametrial resection, starting from the posterior part, the direct visualization of the main nerve trunks at all sites during parametrial resection, and the avoidance of direct manipulation and unnecessary dissection of the nerves. Operative outcomes of 22 patients with cervical or uterine cancer who underwent type III radical hysterectomy from August 2008 to March 2010 were reviewed. Comparing with the earlier method performed at the author's institution, the present technique was associated with an increased proportion of patients who had a postvoid residual urine volume (PVR) under 50 mL at postoperative day 7 (55% vs 27%) and a shorter median duration before this PVR was reached (7 days vs 9 days). The systematic approach proposed in this article would make the nerve-sparing technique for radical hysterectomy more straightforward and applicable to various settings. A thorough understanding of anatomy and adequate surgical skills are always vital components of successful nerve-sparing radical hysterectomy.

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Clinical significance of atypical glandular cells on Pap smears: Experience from a region with a high incidence of cervical cancer

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Aim: To evaluate the histopathology of women who had atypical glandular cells (AGC) on Pap smears in a region with high incidence of cervical cancer.
Material and Methods: This study was conducted at Chiang Mai University Hospital, Chiang Mai, Thailand. All women with AGC who underwent colposcopic and histopathologic evaluation between January 2002 and December 2008 were reviewed. Women with simultaneous diagnosis of squamous cell abnormality or prior history of cancer of any type were excluded.
Results: Sixty-three women with AGC Pap test had histologic follow-up during the study period. Mean age was 44.9 years (range, 31–72 years). Six (9.5%) women were nulliparous. Sixteen (25.4%) women were postmenopausal. The histopathologic results of these 63 women were as follows: cervical intraepithelial neoplasia (CIN) 2-3, 5 (7.9%); adenocarcinoma in situ (AIS), 3 (4.8%); endometrial cancer, 3 (4.8%); cervical cancer, 2 (3.2%); endometrial hyperplasia (EH), 1 (1.6%); and no lesions, 49 (77.8%). The prevalence of significant lesions (CIN 2-3, AIS, EH, and cancer) in women with atypical glandular cells, favor neoplasia was significantly higher than that in the atypical glandular cells, not other specified group (41.2% and 15.2%, P = 0.02).
Conclusion: Reporting AGC in our population is clinically significant due to the high prevalence of underlying preinvasive and invasive diseases (22.2%). This subtype of the AGC category is a significant predictor of such lesions.

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An audit of colposcopy appointment processes in women with abnormal cervical cytology

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This study was conducted to audit the waiting times and default rates of colposcopy using the standard requirements of the National Health Service Cervical Screening Programme (NHSCSP) 2004 guidelines. **Methods:** The records of 291 women with abnormal cervical smears referred to the colposcopy clinic between January and December 2008 at Chiang Mai University Hospital, Thailand, were reviewed. **Results:** The proportion of women with abnormal cervical smears of any grade receiving colposcopy appointments within 8 weeks of referral (96.9%) achieved the minimum requirements (>/= 90%). However, the waiting times for women with high-grade squamous intraepithelial lesion, glandular cell abnormality and invasive lesion smears were longer than recommended by NHSCSP guidelines. The default rate of 15.8% in this study was slightly higher than recommended by the guidelines (< 15%). Having no health insurance, being known to have HIV infection and waiting times longer than 4 weeks were independent predictors of default from an initial colposcopy appointment. **Conclusion:** The waiting times for colposcopy among women with high-grade smear abnormality and the default rate failed to meet standard requirements. Designing an effective protocol for colposcopy appointment processes is warranted

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Preceding cervical cytology in women with high-grade squamous intraepithelial lesion

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Objective: To evaluate the preceding cervical cytology and factors leading to cytohistologic discrepancy in women with high-grade squamous intraepithelial lesion (HSIL) histology.
Methods: The records of women who were found to have histologically confirmed HSIL without any associated invasive and glandular lesions, at Chiang Mai University Hospital between January 2005 and May 2009, were reviewed. Cytohistological discrepancy was defined as HSIL histology preceded by low-grade squamous intraepithelial lesion (LSIL) and atypical squamous cells of undetermined significance (ASC-US) smears.
Results: The records of 436 HSIL cases were reviewed. The mean age of the women was 45.0 +/- 9.3 years. The preceding smear abnormalities were as follows: 275 (63.1%) with HSIL; 50 (11.5%) with atypical squamous cells cannot exclude high-grade squamous intraepithelial lesion (ASC-H); 40 (9.2%) with squamous cell carcinoma; 35 (8.0%) with LSIL; 32 (7.3%) with ASC-US; and 4 (0.9) with glandular abnormality smears. Overall, the rate of cytohistological discrepancy was 15.4% (95% CI 12.1-19.1%). The small size of HSIL and presence of coexisting LSIL are significant independent predictors for cytohistologic discrepancy.
Conclusion: Approximately 15% of HSIL cases are under-diagnosed by cytology. Significant factors leading to cytohistologic discrepancy are lesion size and the presence of coexisting LSIL.

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Accuracy of the Wallach Endocell endometrial cell sampler in diagnosing endometrial carcinoma and hyperplasia

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Aim: To assess the accuracy of the Wallach Endocell endometrial cell sampler in diagnosing endometrial carcinoma and hyperplasia.
Methods: Women aged over 35 years old with abnormal uterine bleeding who came to Chiang Mai University Hospital between June 2008 and June 2009 were invited to participate in this study if they were candidates for the fractional curettage procedure. All patients underwent endometrial sampling prior to endometrial curettage. The endometrial samples from both procedures were separately evaluated by different pathologists. The accuracy of the Wallach Endocell device in diagnosing endometrial carcinoma and hyperplasia was calculated by comparison with the final histology. When the results from both procedures were not identical, the final diagnosis was reported according to the consensus of the pathologists. Tissue adequacy was also determined.
Results: During the study period, 202 patients were recruited into this study. The sensitivity, specificity, false negative rate and false positive rate of the Wallach Endocell in diagnosing endometrial carcinoma and hyperplasia were 60.00%, 99.46%, 40.00% and 0.54%, respectively. Of 13 patients with endometrial hyperplasia, six were not detected by the Wallach Endocell device. All endometrial carcinomas were detected by the endometrial sampling procedure. Tissue adequacy from the Wallach Endocell device was 85.6%. The positive predictive value and negative predictive value were 95.00% and 92.85%, respectively.
Conclusions: The Wallach Endocell is an effective device for diagnosing endometrial carcinoma; however, the results of endometrial sampling should be interpreted with caution because of a high false negative rate in detecting endometrial hyperplasia

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Transumbilical single-incision laparoscopic hysterectomy with conventional laparoscopic instruments in patients with symptomatic leiomyoma and/or adenomyosis

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PURPOSE: To evaluate the feasibility, safety and perioperative outcome of single-incision laparoscopic hysterectomy (SILH) using conventional laparoscopic instruments for treatment of patients with symptomatic leiomyoma and/or adenomyosis.
METHODS: A retrospective study (Canadian Task Force Classification II-2) was carried out at a tertiary referral university hospital from August 2009 to January 2010. Women diagnosed with leiomyoma/adenomyosis and scheduled to undergo SILH were enrolled. The criteria included uterine size ≤16 weeks' gestation on pelvic examination, no suspected malignancy on sonography, normal cytology and contraindications for vaginal hysterectomy. The medical records of all consecutive patients undergoing SILH were reviewed. The main outcome measurements were the feasibility and safety of SILH in terms of conversion rate, body mass index (BMI), uterine weight, operative time, estimated blood loss, drop in hemoglobin level and complications.
RESULTS: Eleven consecutive patients diagnosed with leiomyoma (10) and adenomyosis (1) underwent SILH successfully during the study period, without conversion or requirement of any extra port. The mean age and BMI of the patients were 47.4 ± 4.27 years and 25.2 ± 4.61 kg/m(2), respectively. The average clinical uterine size and uterine weight were 13.2 ± 2.48 weeks' gestation and 281.6 ± 152.89 g, respectively. The mean operative time was 163.3 ± 20.46 min. The mean estimated blood loss and drop in hemoglobin level were 114.5 ± 48.65 ml and 0.33 ± 0.62 g/dl, respectively. No intra-operative complication occurred. Postoperative febrile morbidity was found in two patients. The follow-up at 14 days and 6 weeks postoperatively was uneventful.
CONCLUSIONS: SILH using conventional laparoscopic instrumentation might be a feasible and safe alternative to standard multiple incision laparoscopic hysterectomy in selected patients with symptomatic benign uterine tumor. The potential advantages of our technique are: it is simple and cost-effective, due to the use of conventional, user-friendly laparoscopic instruments. Additional studies on SILH are needed to demonstrate its safety, define selective criteria and determine any benefits over conventional laparoscopic hysterectomy

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Treated ovarian cancer patients with generic paclitaxel, is it effectve?

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Background and Aim: As in the developing countries, generic paclitaxel in Thailand is commonly administered to treat ovarian cancer combined with carboplatin in carboplatin & paclitaxel (PT) regimen as adjuvant setting. With the question that if this worked as the original one or not, we conducted the retrospective study to analyze the outcome of ovarian cancer patients treated with generic paclitaxel in our center.

Method: Between January 2004 and December 2008, the medical records of ovarian cancer patients treated with generic paclitaxel and carboplatin were reviewed. The clinical characteristics, the outcome of treatment and the survival were analyzed.

Result: A total of 168 patients were identified. The patients were in stage I,II,III,IV as 63(37.5%),23(13.7%),65(38.7%) and 17(10.1%) , respectively. Only 33% of the studied patients were underwent complete surgical staging procedure. The patients received neoadjuvant in 17%. The most common histology was clear cell CA (35.1%) followed by serous cystadenocarcinoma (33.3%) and endometrioid CA (16.7%). The response rate was 85.1% (complete response = 60.7%, partial response =24.4%). Fifty-nine patients (35%) were recurrence. The 5-year progression free survival and overall survival rate were 35.4 % and 51.0%, respectively. In advanced stage, the median overall survival rate was 32 months. This outcome was corresponding to the outcome in the previous reports that using the original paclitaxel.

Conclusion: The outcome of patients who received generic paclitaxel in PT regimen seems to be response and gives the survival rate rather well.

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