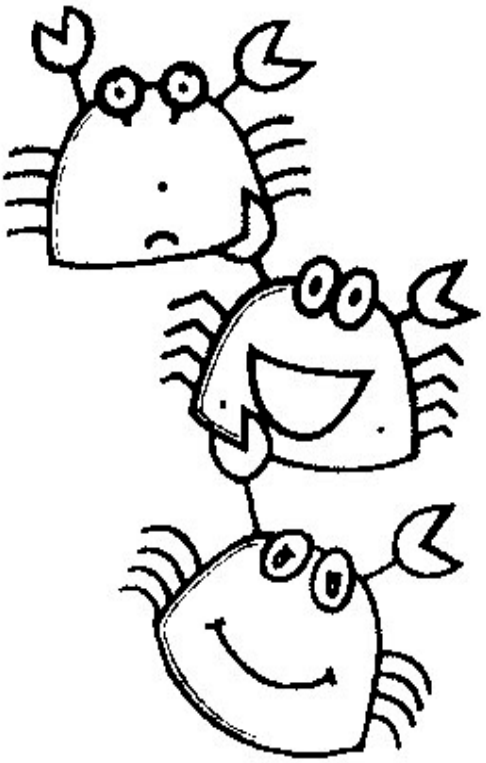
ANNUAL REPORT
ON
GYNECOLOGIC ONCOLOGY
2012



DIVISION OF GYNECOLOGIC ONCOLOGY

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

FACULTY OF MEDICINE, CHIANG MAI UNIVERSITY

CHIANG MAI, THAILAND

ANNUAL REPORT 2012
GYNECOLOGIC ONCOLOGY

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

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รายงานประจำปี 2555

หน่วยมะเร็งวิทยานรีเวช

ภาควิชาสูติศาสตร์และนรีเวชวิทยา

คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่

อนุสาขามะเร็งวิทยานรีเวช

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PREFACE

Obstetrics and Gynecology department has three major missions which are teaching, research and service. Every mission needs information for improving the quality which aims to be excellence in their field. Our department divides into four major subspecialties: maternal fetal medicine, reproductive medicine, gynecologic oncology, and 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 2012 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 2012 is the sixteenth volume of our work in gynecologic oncology. We served around 596 gynecologic cancer patients in this year which slightly decreased from the last year's number. The leading cancer is still cervical cancer, followed by uterine cancer and ovarian cancer. It is to be noted that uterine cancer has increased in last 5 years.

About 80 Wertheim operations were performed in our hospital and 10% of this procedure operated via laparoscopic route. Eleven original studies were published in the peer-reviewed journals in 2012.

This report is divided into 2 sections. The first section provides the statistics of all gynecologic cancer patients in the year 2012 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 in 2012. This report used the new version of FIGO staging system.

In this year, Robotic surgery in gynecologic patients was initiated in our institute by Dr. Chailert Phongnarisorn and his team with the good outcome.

I gratefully acknowledge the contributions of the following individuals, without whom this Annual Report could not have been possible. Dr. Manatsawee Manopunya who collected the research data. My research team, Khun Narisa Sribanditmongkol, Khun Sukanya Yanunto and Khun Tosapol Chainoy gave their help greatly to collect and analyze the patients' 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 continuous support.

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  - Cancer of the Peritoneum
  - Cancer of Two Primary Gynecologic Organs
  - Gestational Trophoblastic Disease

TABLE 1 : Gynecologic Oncology Registry :Chiang Mai University 1997-2012

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 1997-2012(continue)

Site	2007 Number (%)	2008 Number (%)	2009 Number (%)	2010 Number (%)	2011 Number (%)	2012 Number (%)
Cervix	480 (63.6)	473 (63.2)	436 (58.1)	449(64.2)	387(57.1)	345 (57.9)
Ovary	132 (17.5)	115 (15.2)	141 (18.8)	105(15.0)	118(17.5)	86 (14.4)
Corpus	91 (12.0)	117 (15.4)	116 (15.5)	94(13.4)	114(16.9)	106 (17.8)
Vulva	11 (1.5)	21 (2.8)	24 (3.2)	21(3.0)	16(2.4)	27 (4.5)
Vagina	6 (0.7)	7 (0.9)	7 (0.9)	12(1.7)	11(1.6)	5 (0.8)
FT	7 (0.9)	4 (0.5)	4 (0.5)	6(0.9)	3(0.4)	4 (0.7)
PPA	11 (1.5)	7 (0.9)	8 (1.1)	-	5(0.7)	8 (1.3)
GTT	17 (2.3)	15 (2.0)	14 (1.9)	12(1.7)	22(3.3)	15 (2.5)
Total	**755 (100)**	**759 (100)**	**750 (100)**	**699(100)**	**676(100)**	**596(100)**

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

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
CKC	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

*** with pelvic lymphadenectomy**

CKC = Cold Knife Conization

LEEP = Loop Electrosurgical Excision Procedure

Operations and Procedures in Gynecologic Oncology (continue)

Operations and Procedures	2007 Number	2008 Number	2009 Number	2010 Number	2011 Number	2012 Number
Surgery for Ovarian & Tubal Cancer	89	95	115	87	117	103
Surgery for Corpus Cancer	80	106	83	87	96	94
Surgery for Vulvar Cancer	8	21	18	20	14	17
Radical hysterectomy*	120	121	103	125	89	71
Modified Radical hysterectomy*	-	-	18	12	17	12
Abandon Hysterectomy*	-	-	1	1	3	7
Laparoscopic surgical staging for Corpus cancer	-	-	-	6	4	3
Laparoscopic Radical Hysterectomy*	11	16	5	-	9	9
Radical Parametrectomy*	1	-	1	-	2	2
Laparoscopic Radical Parametrectomy*	-	-	-	2	-	-
Extrafacial Hysterectomy	47	31	32	40	6	2
Total Laparoscopic Hysterectomy	4	2	2	2	2	1
CKC	15	6	5	6	2	-
LEEP	317	235	175	203	157	173
Cryosurgery	-	-	-	-	-	-
Colposcopy	519	556	474	409	406	494

*** with pelvic lymphadenectomy**

CKC = Cold Knife Conization

LEEP = Loop Electrosurgical Excision Procedure

Gynecologic Oncology Multiple Primary Cancers : Chiang Mai University 2002-2012

Multiple Primary Cancers	2002 Number	2003 Number	2004 Number	2005 Number	2006 Number	2007 Number	2008 Number	2009 Number	2010 Number	2011 Number	2012 Number
Ovarian and Cervical Cancer	**2**	**1**	**1**	**1**	**-**	**-**	**1**	**-**	**-**	**-**	**-**
Ovarian and Corpus Cancer	**7**	**-**	**5**	**13**	**5**	**4**	**8**	**5**	**7**	**4**	**4**
Corpus and Cervical Cancer	**1**	**-**	**-**	**1**	**-**	**1**	**-**	**-**	**-**	**-**	**-**
Corpus and Fallopian Tube Cancer	**1**	**-**	**-**	**-**	**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**	-	**1**
Corpus and Colon Cancer	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	-	-
Corpus and Bladder cancer	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	-
Cervix and Ileal cancer	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	-

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
≤ 30	3	0.9
31-40	41	11.9
41-50	96	27.8
51-60	122	35.4
61-70	48	13.9
71-80	31	9.0
81-90	3	0.9
≥ 91	1	0.3
Total	345	100.0

(Not include recurrent cases = 12 cases)
Minimum age 23 years, Maximum age 94 years
Mean age 53.63±11.58 years

TABLE 3 : Cancer of the Cervix : Parity Distribution.

Parity	Number	Percent
0	14	4.1
1	78	22.6
2	132	38.3
3	45	13.0
4	35	10.1
5	13	3.8
6	12	3.5
7	5	1.4
8	3	0.9
10	4	1.2
11	2	0.6
12	1	0.3
14	1	0.3
Total	**345**	**100.0**

TABLE 4 : Cancer of the Cervix: Stage Distribution.

Stage	Number	Percent
I	117	33.9
II	116	33.6
III	86	24.9
IV	26	7.5
Total	**345**	**100.0**

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

	Stage	Number	Percent
I	IA1	13	3.8
	IA2	6	1.7
	IB1	77	22.3
	IB2	21	6.1
II	IIA1	11	0.0
	IIA2	13	3.2
	IIB	91	3.8
III	IIIA	5	26.4
	IIIB	81	1.4
IV	IVA	8	23.5
	IVB	19	2.3
Total		**345**	**100.0**

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

Stage	Number Negative HIV(%)	Number Positive HIV(%)	Number not done (%)	Total
IA1	10 (2.9)	2 (0.6)	1 (0.3)	13 (3.8)
IA2	6 (1.7)	0 (0.0)	0 (0.0)	6 (1.7)
IB1	62 (17.9)	3 (0.9)	12 (3.5)	77 (22.3)
IB2	14 (4.1)	3 (0.9)	4 (1.2)	21 (6.1)
IIA1	8 (2.3)	0 (0.0)	3 (0.9)	11 (3.2)
IIA2	12 (3.5)	0 (0.0)	1 (0.3)	13 (3.8)
IIB	69 (20.0)	5 (1.4)	17 (4.9)	91 (26.4)
IIIA	2 (0.6)	0 (0.0)	3 (0.9)	5 (1.4)
IIIB	56 (16.2)	4 (1.2)	21 (6.1)	81 (23.5)
IVA	8 (2.3)	0 (0.0)	0 (0.0)	8 (2.3)
IVB	17 (4.9)	2 (0.6)	0 (0.0)	19 (5.5)
Total	**264 (76.5)**	**19 (5.5)**	**62 (18.0)**	**345 (100.0)**

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

Histological Type	Number	Percent
Squamous cell carcinoma	**252**	**72.8**
Well differentiation	24	9.5
Moderately differentiation	176	69.8
Poorly differentiation	37	14.7
Not define differentiation	15	6.0
Adenocarcinoma	**50**	**14.4**
Adenosquamous	**14**	**4.0**
Small cell NE	**10**	**2.9**
Large cell NE	**2**	**0.6**
Mixed adenoCA+ small cell NE	**2**	**0.6**
Mixed SCCA + small cell NE	**2**	**0.6**
Clear cell CA	**1**	**0.3**
AdenoCA+ squamous CA	**1**	**0.3**
Atypical squamous cell	**1**	**0.3**
Large cell neuroendocrine+WD AdenoCA	**1**	**0.3**
Malignant melanoma	**1**	**0.3**
mixed small cell+ Adenosquamous CA	**1**	**0.3**
Mixed WD+ MD NE	**1**	**0.3**
PD CA	**1**	**0.3**
Undifferentiated CA	**1**	**0.3**
Unknown*	**4**	**1.2**
Total	**345**	**100.0**

*Unknown = data not available : refer from other hospitals 4 cases 2251054, 3021699, 3418459 , 3428706

SCCA = Squamous cell carcinoma

NE = Neuroendocrine MD = Moderately differentiation
CA = Carcinoma WD = Well differentiation
PD = Poorly differentiation

TABLE 8 : Treatment of cancer of the Cervix.

Treatment	Number	Percent
Surgery alone	**49**	**14.2**
TAH	4	1.2
RHPL	30	8.7
LRHPL	8	2.3
Extended hysterectomy	6	1.7
Radical Parametrectomy	1	0.3
Chemotherapy alone	13	3.8
Palliative Radiation	8	2.3
Concurrent chemoradiation	10	2.9
Concurrent chemoradiation+ Brachytherapy	98	28.4
RT+Brachytherapy	63	18.3
Brachytherapy alone	3	0.9
Combined treatment		
LRHPL+ RT+ Brachytherapy	1	0.3
LRHPL+ CCRT+ Brachytherapy	2	0.6
TAH+CCRT+Brachytherapy	3	0.9
TAH+Pelvic RT+Brachytherapy	2	0.6
TAH+CT	1	0.3
TAH+ refer to other hospitals for CCRT	2	0.6
RHPL+RT+ Brachytherapy	6	1.7
RHPL+Brachytherapy	5	1.4
RHPL+CCRT+ Brachytherapy	24	7.0
RHPL+CT	3	0.9
RHPL refer to other hospitals for CCRT	1	0.3
Extended hysterectomy+ CCRT+ HDR	6	1.7
Abandon Hysterectomy+CCRT+ Brachytherapy	5	1.4
Abandon Hysterectomy+RT+ Brachytherapy	1	0.3
Abandon Hysterectomy+CT	1	0.3
NAC+RHPL+CCRT+Brachytherapy	1	0.3
NAC+ Abandon Hysterectomy+CCRT+Brachytherapy	1	0.3
NAC+CCRT+Brachytherapy	3	0.9
Others		
Lost to FU without treatment	7	2.0
Refer to another hospital for RT	20	5.8
Refuse for treatment	2	0.6
Awaiting for surgery	3	0.9
Awaiting for start RT	1	0.3
Total	**345**	**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 = 60 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
<5	2	2.3
11-20	5	5.8
21-30	4	4.7
31-40	10	11.6
41-50	13	15.1
51-60	37	43.0
61-70	12	14.0
>70	3	3.5
Total	**86**	**100.0**

Minimum age 5 years, Maximum age 80 years
Mean age 48.7 ±15.1 years

Not include recurrent case = 5 cases

TABLE 10 : Cancer of the Ovary : Parity Distribution.

Parity	Number	Percent
0	29	33.7
1	11	12.8
2	30	34.9
3	13	15.1
6	2	2.3
7	1	1.2
Total	**86**	**100.0**

TABLE 11 : Cancer of the Ovary : Histological Distribution.

Histology	Number	Percent
Epithelium	70	81.4
Germ Cell	11	12.8
Sex cord-stromal	5	5.8
Total	**86**	**100.0**

TABLE 12 : Epithelial Ovarian Cancer : Histological Subtype Distribution.

Histological Subtype	Number	Percent
Mucinous LMP	15	21.4
Clear cell CA	15	21.4
Serous cystadenocarcinoma	15	21.4
Endometrioid CA	9	12.9
Mixed epithelial CA	7	10.0
AdenoCA	3	4.3
Serous LMP	3	4.3
Mucinous adenoCA	3	4.3
Total	**70**	**100.0**

CA = Carcinoma
LMP = Low malignant potential

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

Histological Subtype	Number	Percent
Dysgerm	1	9.1
Immature teratoma	3	27.3
Mixed malignant germ cell	1	9.1
Malignant melanoma arising in mature cystic teratoma	1	9.1
SCCA arising in mature cystic teratoma	1	9.1
SCCA, MD	1	9.1
Yolk sac tumor	3	27.3
Total	**11**	**100**

MD = moderately differentiated
SCCA = squamous cell carcinoma

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

Subtype	Number	Percent
Adult granulosa cell tumor	2	40.0
Juvenile granulosa cell tumor	1	20.0
Cellular fibroma	2	40.0
Total	**5**	**100.0**

TABLE 15 : Epithelial Ovarian Cancer : Stage Distribution.

Stage	Number	Percent
IA	16	22.9
IC	23	32.9
IIC	6	8.6
IIIB	1	1.4
IIIC	16	22.9
IV	7	10.0
Not stage	1	1.4
Total	**70**	**100**

*** Not stage : NAC awaiting for surgery**

TABLE 16 : Germ Cell Ovarian Cancer: Stage Distribution.

Stage	Number	Percent
IA	3	27.3
IC	4	36.4
IIC	3	27.3
IIIC	1	9.1
Total	**11**	**100.0**

TABLE 17 : Sex cord-stromal : Stage Distribution.

Stage	Number	Percent
IA	1	20.0
IC	2	40.0
IIB	1	20.0
IIIA	1	20.0
Total	**5**	**100.0**

TABLE 18 : Ovarian Cancer : Stage and Histology Distribution.

	Epithelial	Percent	Germ cell	Percent	Sex cord stromal tumor	Percent
IA	17	22.9	3	27.3	1	20.0
IC	24	32.9	4	36.4	2	40.0
IIB	0	0.0	0	0.0	1	20.0
IIC	6	8.6	3	27.3	0	0.0
IIIA	0	0.0	0	0.0	1	20.0
IIIB	1	1.4	0	0.0	0	0.0
IIIC	16	22.9	1	9.1	0	0.0
IV	7	10.0	0	0.0	0	0.0
Not stage	1	1.4	0	0.0	0	0.0
Total	**70**	**100**	**11**	**100**	**5**	**100**

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

Treatment	Number	Percent
Complete SSP with adjuvant chemotherapy	17	19.8
Complete SSP without adjuvant chemotherapy	10	11.6
Incomplete SSP with adjuvant chemotherapy	31	36.0
Incomplete SSP without adjuvant chemotherapy	17	19.8
NAC with complete SSP with adjuvant chemotherapy	10	11.6
NAC plan to surgery	1	1.2
Total	**86**	**100.0**

SSP = Surgical Staging Procedure

NAC = Neoadjuvant Chemotherapy

TABLE 20 : Ovarian Cancer : Outcome of Treatment.

Outcome	Number	Percent
Under FU without disease	49	57.0
Under FU with partial response	1	1.2
Under FU with disease	3	3.5
During treatment	28	32.6
Lost to FU	3	3.5
Refer to provincial hospital for chemotherapy	2	2.3
Total	**86**	**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
<41	5	4.7
41-50	17	16.0
51-60	46	43.4
61-70	30	28.3
71-80	8	7.5
Total	**106**	**100.0**

Minimum age 32 years, Maximum age 80 years
Mean age 57.4±9.5 years

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

Menopausal Status	Number	Percent
Yes	82	77.4
No	24	22.6
Total	**106**	**100.0**

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

Medical disease	Number	Percent
None	66	62.3
Hypertension	13	12.3
Hypertension+ DM	6	5.7
Hypertension+ DM+ Dyslipidemia	2	1.9
Hypertension+ Dyslipidemia	11	10.4
Hypertension+ CA breast+ CA thyroid	1	0.9
Hypertension+ DM+CA colon	1	0.9
Dyslipidemia	2	1.9
Heart disease	2	1.9
DM	1	0.9
DM+ Dyslipidemia	1	0.9
Total	**106**	**100**

DM = Diabetes mellitus

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

Parity	Number	Percent
0	24	22.6
1	16	15.1
2	41	38.7
3	15	14.2
4	9	8.5
5	1	0.9
Total	**106**	**100.0**

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

	Stage	Number	Percent
I	I	1	0.9
	IA	33	31.1
	IB	19	17.9
II	II	10	9.4
	IIB	2	1.9
III	III	1	0.9
	IIIA	12	11.3
	IIIB	1	0.9
	IIIC1	4	3.8
	IIIC2	8	7.5
IV	IV	3	2.8
	IVB	11	10.4
Unknown*		1	0.9
	Total	**106**	**100.0**

Unknown* = not surgery lost to follow up1 case

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

Histology Type	Number	Percent
Endometrioid adenoCA		
Grade I	33	31.1
Grade II	19	17.9
Grade III	13	12.3
Carcinosarcoma	8	7.5
Clear cell adenoCA	7	6.6
Serous adenoCA	6	5.7
Endometrioid adenoCA with squamous differentiation	6	5.7
Leiomyosarcoma	3	2.8
Endometrial stromal tumor	1	0.9
AdenoCA with mucinous differentiation	1	0.9
Undifferentiation Endometrial sarcoma	1	0.9
Mixed type	8	7.5
Total	**106**	**100.0**

CA = carcinoma

TABLE 27 : Treatment of Corpus Cancer.

Treatment	Number	Percent
complete SSP	23	21.7
complete SSP+ CT	7	6.6
complete SSP+ refer to other hospital for RT	1	0.9
complete SSP+RT+Brachytherapy	13	12.3
complete SSP+Brachytherapy	11	10.4
complete SSP+ Sequential chemo-RT+Brachytherapy	15	14.2
Incomplete SSP	4	3.8
Incomplete SSP+CT	12	11.3
Incomplete SSP+Brachytherapy	3	2.8
Incomplete SSP+RT+Brachytherapy	9	8.5
Incomplete SSP+ Sequential chemo-RT	3	2.8
NAC plan surgery	1	0.9
Refuse treatment	1	0.9
RT alone	2	1.9
CT alone	1	0.9
Total	**106**	**100.0**

SSP = Surgical Staging Procedure
RT = Radiation Therapy
CT = Chemotherapy
CCRT = Concurrent chemoradiation
NAC = Neoadjuvant Chemotherapy

TABLE 28 : Outcome of Treatment of Corpus Cancer.

Outcome	Number	Percent
During treatment	36	34.0
During treatment with progress/persist of disease	3	2.8
Under FU without disease	52	49.1
Under FU with partial response	1	0.9
Under FU with disease	1	0.9
Lost to FU with disease	5	4.7
Palliative treatment	2	1.9
Refer to other hospitals for further treatment (RT= 5)	5	4.7
Death of disease	1	0.9
Total	**106**	**100.0**

FU = Follow up

RT = Radiation Therapy

Cancer of the Vulva

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

TABLE 29 : Cancer of the Vulva : Age Distribution.

Age	Number	Percent
<41	5	18.5
41-50	6	22.2
51-60	9	33.3
61-70	3	11.1
70-80	3	11.1
>80	1	3.7
Total	**27**	**100.0**

Minimum age 35 years, Maximum age 86 years
Mean age 53.5 ± 12.9 years

* vulva intraepithelial neoplasia = 2 case

TABLE 30 : Cancer of the Vulva : Stage Distribution.

Age	Number	Percent
I	3	11.1
IA	1	3.7
IB	7	25.9
II	6	22.2
III	4	14.8
IIIB	2	7.4
IIIC	1	3.7
IVB	3	11.1
Total	**27**	**100.0**

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

Histological Type distribution	Number	Percent
Squamous cell carcinoma		
Well differentiation	15	65.2
Moderately differentiation	5	21.7
Poorly differentiation	1	4.3
Not define differentiation	2	8.7
AdenoCA	2	7.4
Small cell NE	2	7.4
Total	**27**	**100.0**

CA = Carcinoma NE = Neuroendocrine

TABLE 32 : Treatment of cancer of the vulva.

Treatment	Number	Percent
WLE	1	3.7
WLE+ RT	2	7.4
WLE + CCRT	1	3.7
WLE + Brachytherapy	1	3.7
Radical local excision+ BGND	1	3.7
Radical local excision+ BGND+ Brachytherapy	2	7.4
Radical local excision+ BGND+RT	1	3.7
Radical vulvectomy+ BGND+ RT	1	3.7
Radical vulvectomy+ BGND+ CCRT	1	3.7
Radical hemivulvectomy+BGND+ RT	3	11.1
CCRT	6	22.2
CT	4	14.8
Palliative	1	3.7
Awaiting for surgery	1	3.7
Lost to FU without treatment	1	3.7
Total	**27**	**100.0**

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

Cancer of the Vagina

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

TABLE 33 : Cancer of the Vagina

No	HN	Age	Stage	Histology	Treatment
1	3431075	50	I	SCCA	RT+ Brachytherapy
2	2191699	57	Not stage	SCCA	plan RT loss FU
3	3427652	42	III	AdenoCA	CCRT
4	3432405	77	I	Malignant melanoma	WLE+ RT+ Brachytherapy
5	3436467	75	Not stage	Malignant melanoma	Vaginal excision+ palliative (refuse treatment)

SCCA = squamous cell carcinoma
RT = radiation Therapy
FU = follow up
CCRT = Concurrent chemo radiation
RT = Radio therapy
WLE = Wide local excision

Cancer of the Fallopian Tube

TABLE 34 : Cancer of the Fallopian Tube 2012

Data	Case 1	Case 2	Case 3
HN	3402092	3415882	2467225
Age	48	49	54
Marital status	Married	Married	single
Parity	0	1-0-0-1	0
Presenting symptoms	Pelvic mass	Abnormal vaginal discharge	Abdominal mass
Stage	IIC	IIA	IIC
Histology	Mixed serous and endometrioid adenoCA gr.3	MD, adenoCA	PD, Serous adenoCA
Treatment	TAH &BSO with BPND with partial omentectomy > PTx3>Carboplatinx3	Lt.SO & Rt.salpingectomy > PTx6	S/pTAH&Rt.SO (indication is unknown) >Lt.SO> PTx6
Outcome	Under follow up without disease	Under follow up without disease	Under follow up without disease

Data	Case 4
HN	3458820
Age	38
Marital status	married
Parity	0
Presenting symptoms	Abdominal pain
Stage	IIIC
Histology	PD, Serous adenoCA
Treatment	TAH &BSO with peritoneal washing>PT
Outcome	During treatment

CA = Carcinoma
TAH&BSO = Trans abdominal hysterectomy and bilateral salpingo oophorectomy
PT = Paclitaxel and Carboplatin
PD = Poorly differentiated
MD = Moderately differentiated
FU = Follow up
Rt = Right
Lt = Left
SO = Salpingo oophorectomy
BPND = Bilateral pelvic node dissection

Cancer of The Peritoneum

TABLE 35 : Cancer of The Peritoneum 2012

Data	Case 1	Case 2	Case 3
HN	2921517	3386169	3385994
Age	64	78	67
Marital status	married	married	married
Parity	2-0-0-2	3-0-0-3	3-0-0-3
Presenting symptoms	Abdominal distention	Abdominal distention	Abdominal mass
Stage	IIIC	IIIC	IIIC
Histology	Serous adenocarcinoma	adenocarcinoma	adenocarcinoma
Treatment	NAC(PTx3)>TAH&BSO with omental biopsy> PT	Carboplatin x6 > TAH&BSO	NAC(PTx3)>TAH&BSO with omental biopsy> PTx3> Etoposide
Outcome	During treatment	During treatment	During treatment

Data	Case 4	Case 5	Case 6
HN	3404458	3406820	3413908
Age	59	54	55
Marital status	married	married	married
Parity	3-0-0-3	2-0-0-2	3-0-1-2
Presenting symptoms	Abdominal distention	Abdominal distention	Abdominal distention
Stage	IIIC	IIIC	IIIB at least
Histology	MD, papillary adenocarcinoma	PD, serous adenocarcinoma	adenocarcinoma
Treatment	NAC(PTx3) >TAH&BSO with partial omentectomy, peritoneal washing > PTx6	TAH&BSO> PTx7 >Gemcitabine x3	TAH&BSO>PTx6
Outcome	Under follow up without disease	During treatment	Under follow up without disease

FU = Follow up
PT = Paclitaxel + Carboplatin
PD = Poorly differentiation
MD = Moderate differentiation
NAC = Neoadjuvant chemotherapy
TAH&BSO = Trans abdominal hysterectomy and bilateral salpingo-oophorectomy

Cancer of The Peritoneum 2012 (continue)

Data	**Case 7**	**Case 8**
HN	3425682	3461699
Age	68	69
Marital status	single	married
Parity	0	6-0-0-5
Presenting symptoms	Abdominal mass	Abdominal distention
Stage	IIIC	Not stage
Histology	Serous adenocarcinoma	Serous adenocarcinoma
Treatment	Debulking tumor > Carboplatin x6	Carboplatin
Outcome	Under follow up without disease	During treatment

Cancer of Two Primary Gynecologic Organs

TABLE 36 : Cancer of the Two Primary Gynecologic Organs 2012

Data	Case 1 CA Corpus+ CA Ovary	Case 2 CA Cervix+ CA vulva	Case 3 CA Corpus+ CA Ovary
HN	3407186	3431660	3435754
Age	53	72	62
Marital status	married	married	single
Parity	2-0-0-2	7-0-0-7	0
Presenting symptoms	Pelvic pain	Bleeding per vagina	Abdominal distention
Stage	CA Corpus IA, CA Ovary IC	CA cervix IIIB, CA vulva	CA Corpus IA, CA Ovary IIIC
Histology	Corpus: Endometrioid adenoCA gr.2 Bilateral ovaries: Endometrioid adenoCA gr.2	Cervix : MD. SCCA Vulva: SCCA	Corpus: Endometrial intraepithelial CAwith focus of early serous adeno CA Bilateral ovaries: Serous adenoCA grade 3
Treatment	TAH&BSO with partial omentectomy >PTx6	WPRT+HDR	TAH&BSO&BPND& PANS&Omentectomy > PT
Outcome	Under FU without disease	Under FU without disease	During treatment

Cancer of the Two Primary Gynecologic Organs (continue)

Data	Case 4 CA Corpus+ CA Ovary	Case 5 CA Corpus+ CA Ovary	Case 6 CA Corpus+ CA Tube
HN	3457948	3470474	2696042
Age	48	58	54
Marital status	married	married	married
Parity	1-0-0-1	1-0-0-1	0
Presenting symptoms	abnormal bleeding per vagina	abnormal bleeding per vagina	abnormal bleeding per vagina
Stage	CA Corpus IA, CA Ovary IC	CA Corpus IIIC, CA Ovary IA	CA Corpus IIIC, CA Tube IA
Histology	Corpus: Endometrioid adenoCA gr.1 Left ovary: Endometrioid adenoCA gr.1	Corpus: Endometrioid adenoCA gr.2 Right ovary: Endometrioid adenoCA gr.1	Corpus: Mixed clear cell adenoCA and endometrioid adenoCA gr.1 Left tube: serous tumor of Low malignant potential
Treatment	TAH &BSO	Extended hysterectomy with BPND with PANS with partial omentectomy > PT	TAH & BSO with BPND with PANS with partial omentectomy
Outcome	Under FU without disease	During treatment	Lost to follow up

CA = carcinoma
MD = Moderately differentiation
FU = Follow up
PT = Paclitaxel and Carboplatin
WPRT = Whole Pelvic Radiation therapy
TAH&BSO = Transabdominal hysterectomy and bilateral salpingo-oophorectomy
gr = grade
SCCA = Squamous Cell Carcinoma
BPND = Bilateral pelvic node dissection
PANS = Paraaortic node sampling
HDR = High Dose Rate

Gestational Trophoblastic Disease

- Gestational Trophoblastic Tumor
- Molar Pregnancy

TABLE 37 : Gestational Trophoblastic Tumors in 2012.

No	HN	Age (yr)	Initial HCGtiter	Prognosis Classification	Diagnosis	FIGO	Treatment	Result
1	1811748	43	652	NMGTT	Persistent mole	I	MTXx4	remission
2	3026622	56	10,047	MGTT (lung)	Invasive mole (patho from TAH)	III	MTXx9	remission
3	3405321	19	3,621	MGTT (lung)	Persistent mole	III	MTXx6	remission
4	3412122	18	186,041	MGTT (lung)	Choriocarcinoma (Dx.from CT scan)	IV	EMA-CO x1	lost to FU
5	3414043	31	1,672	NMGTT	Persistent mole	I	MTXx10	remission
6	3431559	49	79,427	NMGTT	Choriocarcinoma (patho from D&C)	I	Pelvic RT (active vaginal bleeding) > EMAx8	during treatment
7	3436327	44	27,758	NMGTT	Persistent mole	IV	MTXx10	during treatment
8	3439575	51	468	NMGTT	Persistent mole	I	MTXx11	remission
9	3457077	31	2,258	NMGTT	Persistent mole	I	MTX	during treatment
10	3447623	27	22,057	MGTT (lung, brain, bone, pancrease, liver)	Choriocarcinoma	IV	EMA-CO x6 + WPRT	during treatment
11	3470636	37	9,444	NMGTT	Persistent mole	I	S&C > MTX	during treatment
12	3444512	30	529,416	MGTT (liver, spleen)	Choriocarcinoma	IV	EMACO x7	during treatment
13	3441179	24	81	NMGTT	Persistent mole	I	MTXx 6	remission
14	3363098	45	61,345	MGTT (lung)	Persistent mole	I	EMA-CO x 8	lost to FU
15	3464129	35	185.9	NMGTT	Persistent mole	I	MTXx 2	during treatment

MGTT = Metastatic Gestational Trophoblastic tumor
NMGTT = Non-metastatic Gestational Trophoblastic tumor
EMA = Etoposide + Methotrexate + Actinomycin D
EMA-CO = Etoposide + Methotrexate + Actinomycin D + Cyclophosphamide+ Vincristine
MTX = Methotrexate
S&C = suction curettage
RT = radiation therapy

TABLE 38 : Molar Pregnancy in 2012.

No	HN	Age	Gravida	GA (wk)	UT Size (wk)	HCG titer	Risk	Treatment	Pathology	Result
1	3414043	31	G3 P 1-0-1-1	10	8-10	47,086	Low risk	Suction & curettage	Complete hydatidiform mole	persistent mole
2	3457077	31	G2 P 0-0-1-0	-	Normal size	33,114	Low risk	Suction & curettage	Complete hydatidiform mole	persistent mole
3	3400776	21	G1 P0	20	22	1,111,010	High risk	Suction & curettage	Complete hydatidiform mole	Lost to FU
4	3441473	16	G1 P0	-	16	306,659	High risk	Suction & curettage	Complete hydatidiform mole	Under FU

FU = Follow up
UT = Uterine
GA = Gestational age

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	8
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)	3

Funds (กองทุนของหน่วยมะเร็งวิทยานรีเวช)

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

1st Year Fellow

- Vithida Neeyalavira, M.D.
- Prauk Sethasathien, M.D.

2nd Year Fellow

- Sirichai Chuamuangpan, M.D.
- Sukanda Mahawerawat, M.D.
- Wadwilai Chalapati, M.D.

Radiation Oncologists

1. Associate Professor Vicharn Lorvidhaya, M.D.
2. Professor Vimol Sukthomya, M.D.
3. Assistant Professor Anan Tonusin, M.D.
4. 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	494
LEEP	173
CKC	0
TLH	1
Simple Hysterectomy	10
Extended Hysterectomy &PL	12
Abandoned Radical Hysterectomy & PL	7
Laparoscopic Radical Hysterectomy & PL	9
Radical Hysterectomy & PL	71
Radical Parametrectomy & PL& upper vaginectomy	2

CKC = Cold knife Conization
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	101
CRS for Fallopian Tube Cancer	2
CRS for Peritoneal Cancer	6
Surgical Staging for Corpus Cancer	94
Wide Local Excision & BGND for Vulvar Cancer	9
Radical Vulvectomy & BGND for Vulvar Cancer	3
Radical Hemivulvectomy & BGND for Vulvar Cancer	2
Radical Local Excision & BGND for Vulvar Cancer	3

CRS = Cytoreductive Surgery
BGND = Bilateral Groin Node Dissection

PUBLICATIONS & PRESENTATIONS

2012

Predictive value of negative cone margin status for risk of residual disease among women with cervical adenocarcinoma in situ.

Kietpeerakool C, Khunamornpong S, Srisomboon J, Kasunan A, Sribanditmongkol N, Siriaungkul S.

Objective: To determine the value of negative cone margins in predicting residual disease in women with adenocarcinoma in situ (ACIS).

Methods: Data were retrospectively analyzed from 60 women with ACIS who underwent conization at Chiang Mai University Hospital between March, 1998, and December, 2010. Negative margin status was defined as absence of neoplastic epithelium at all margins, coupled with presence of normal cervical epithelium. The association between the incidence of residual lesions and cone margin status was analyzed via $\chi(2)$ or Fisher exact test.

Results: When adjusted for age and completeness of visualization of the cervical squamocolumnar junction during colposcopy, women who underwent loop electrosurgical excision procedure were 4 times more likely to have positive cone margins than those who underwent cold-knife conization (95% CI, 1.13-16.43). Residual disease was not found among 26 women who had negative cone margins, but was observed in 17 (65.4%) of 26 women with positive cone margins ($P<0.001$).

Conclusion: Women with ACIS who had negative cone margins were found to have a notably low risk of residual disease. Adherence to the standard method of cone sampling and criteria for negative margin status might contribute to a high predictive value of negative cone margins.

Published in: Int J Gynaecol Obstet. 2012 Dec;119(3):266-9.

Prognostic value of HPV18 DNA viral load in patients with early-stage neuroendocrine carcinoma of the uterine cervix.

Siriaunkgul S, Utaipat U, Suwiwat S, Settakorn J, Sukpan K, Srisomboon J, Khunamornpong S.

Objectives: To evaluate the clinicopathologic correlation and prognostic value of HPV18 DNA viral load in patients with early-stage cervical neuroendocrine carcinoma (NECA).

Methods: Formalin-fixed, paraffin- embedded tissue of cervical NECA patients with known HPV18 infection and clinicopathologic data including follow-up results were collected. The HPV18 DNA load was assessed with quantitative PCR targeting the HPV18 E6E7 region.

Results: Twenty-one patients with early-stage (IB-IIA) cervical NECA were identified. HPV18 DNA viral load ranged from 0.83 to 55,174 copies/cell (median 5.90). Disease progression, observed in 10 cases (48%), was not significantly associated with any clinicopathologic variables. However, the group of patients with progressive disease tended to have a higher rate of pelvic lymph node metastasis (50% versus 9%, p=0.063) and a lower median value of HPV18 DNA viral load (4.37 versus 8.17 copies/cell, p=0.198) compared to the non-recurrent group. When stratified by a cut-off viral load value of 5.00 copies/cell, the group of patients with viral load ≤5.00 copies/cell had a significantly shorter disease-free survival than the group with viral load >5.00 copies/cell (p=0.028). The group with a lower viral load also tended to have a higher rate of disease progression (75% versus 31%, p=0.080). No significant difference in the other clinicopathologic variables between the lower and higher viral load groups was identified.

Conclusion: THPV18 DNA viral load may have a prognostic value in patients with early-stage NECA of the cervix. A low viral load may be predictive of shortened disease-free survival in these patients.

Published in: Asian Pac J Cancer Prev. 2012;13(7):3281-5.

Factors influencing acceptance of human papillomavirus vaccine among young female college students in Thailand.

Juntasopeepun P, Suwan N, Phianmongkhol Y, Srisomboon J.

Objective: To determine knowledge and beliefs related to human papillomavirus (HPV), cervical cancer, and vaccination among young Thai women, and thereby identify independent predictors associated with acceptance of HPV vaccination.

Methods: A convenience sample of 747 young women aged 18-24 years was recruited from universities and colleges located in the upper northern region of Thailand. An online questionnaire was performed to assess demographics; HPV and cervical cancer-related health characteristics; and knowledge and beliefs toward HPV and cervical cancer. Logistic regression analysis was used to determine independent predictors of HPV vaccine acceptance.

Results: Knowledge about HPV and cervical cancer was moderate. The mean total knowledge score was 7.5 ± 3.8. Acceptance of the HPV vaccine was significantly associated with having received a recommendation for vaccination (odds ratio [OR] 2.12; 95% CI, 1.22-3.68); perceived susceptibility to disease (OR 1.37; 95% CI, 1.22-1.52); perceived benefits of vaccination (OR 1.33; 95% CI, 1.19-1.49); and perceived seriousness of disease (OR 0.90; 95% CI, 0.81-1.00).

Conclusion: Understanding variables associated with acceptance of HPV vaccination may guide immunization initiatives and so increase the uptake rate among young Thai women.

Published in: Int J Gynaecol Obstet. 2012 Sep;118(3):247-50.

Issues and challenges in implementing cervical cancer screenings in the emergence of HPV vaccination in Thailand.

Juntasopeepun P, Davidson PM, Srisomboon J.

The discovery of the HPV vaccine has been a major breakthrough in preventing cervical cancer and other HPV-related diseases around the globe. Cervical cancer is a significant public health problem in Thailand. Despite the long-time availability of cervical cancer screening programs in Thailand, the uptake among the target female population remains low. HPV vaccines were approved by the Food and Drug Administration of Thailand in 2007. As of March 2011, due to financial limitations, HPV vaccines have still not been included in the national immunization program under the public health benefit plans although individuals has the option to pay privately for the vaccine. This paper discusses the issues and challenges in implementing cervical cancer screening programs in the era of HPV vaccination in Thailand. Recommendations to increase the uptake of cervical cancer screening and further research to inform a policy regarding the cervical cancer screening measures are proposed.

Published in: Collegian. 2012;19(1):45-50.

Outcome of single agent generic gemcitabine in platinum-resistant ovarian cancer, fallopian tube cancer and primary peritoneal adenocarcinoma.

Suprasert P, Cheewakriangkrai C, Manopunya M.

Single original gemcitabine is commonly used as salvage treatment in platinum-resistant ovarian cancer, fallopian tube cancer and primary peritoneal adenocarcinoma (PPA) with a satisfactory outcome. However, efficacy data fro this regimen are limited. We therefore conducted a retrospective study to evaluate the outcome of patients who received single-agent generic gemcitabine (GEMITA) after development of clinical platinum resistance. The study period was between May 2008 and December 2010. Gemcitabine was administered intravenously in two different schedules: 1,000 mg/m2 on day 1,8, and 15 every 28 days; and on days 1 and 8 every 21 days with the same dosage. Administration was until disease progression was noted. The response rate was evaluated using the Gynecologic Cancer Intergroup (GCIG) criteria while toxicity was evaluated according to WHO criteria. Sixty-six patients met the inclusion criteria in the study period. Two-thirds of them received gemcitabine as the second and third line regimen. The overall response rate was 12.1%. The median progression free survival and overall survival was 2 and 10 months, respectively. With the total 550 courses of chemotherapy, the patients developed grades 3 and 4 hematologic toxicity as follows: anemia, 1.5%; leukopenia, 13.7%; neutropenia, 27.3%; and thrombocytopenia, 3.0%. In conclusion, single agent generic gemcitabine revealed a modest efficacy in patients with platinum-resistant ovarian cancer, fallopian tube cancer and PPA without serious toxicity.

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Resistant gestational trophoblastic neoplasia patients treated with 5-fluorouracil plus actinomycin D.

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A combination of 5-fluorouracil plus actinomycin D (5FU plus Act D) is the regimen that has been commonly administered to Chinese and Japanese gestational trophoblastic neoplasia patients as the first or second line of treatment with an excellent outcome. However, the efficacy of this regimen in a salvage setting was unclear. To evaluate the efficacy and safety of the 5 FU plus Act D regimen utilized in this condition, all GTN patients resistant to at least three previous chemotherapy regimens who received the 5 FU plus Act D regimen between August 2009 and January 2011 at Chiang Mai University Hospital were reviewed. There were five cases who met the criteria. Four of those patients were in FIGO stage III to IV with a WHO scoring of more than 12. The median number of cycles for each patient was two and only one case achieved remission while four of the cases were unresponsive. The toxicity was evaluated in 12 cycles. Common complications were uncomplicated myelosuppression and mucositis. In conclusion, this regimen revealed modest efficacy in a salvage setting with manageable toxicity.

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Accuracy of frozen-section diagnosis of ovarian mucinous tumors.

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Objective: The objective of the study was to evaluate the diagnostic accuracy of intraoperative frozen sections of ovarian mucinous tumors and to identify the features associated with an inaccurate diagnosis.

Methods: Cases of ovarian mucinous tumors (benign, low malignant potential [LMP] or borderline, primary malignant, and metastatic) diagnosed by frozen section or final histology were recruited. Frozen-section diagnoses were compared with the final histologic diagnoses. Possible variables associated with diagnostic discrepancy were analyzed.

Results: A comparison of the diagnoses was done in 195 cases (102 benign, 61 LMP, 18 primary malignant, and 14 metastatic). Diagnostic agreement was observed in 164 cases (84.1%) and discrepancy in 31 cases (15.9%). The sensitivity of frozen-section diagnosis was low in LMP (67.2%) and malignant tumors (55.6%). The specificity was the lowest in the benign category (78.5%). The positive predictive values of all categories were less than 90% (range, 83.3%-85.7%). Diagnostic discrepancy was associated with tumor size of greater than 13 cm (P = 0.019) and the number of frozen sections of 4 or more (P = 0.035). However, in a multivariate analysis, there was no independent predictor of diagnostic discrepancy. The number of frozen sections 4 or more was strongly associated with tumor size of greater than 13 cm (P = 0.004).

Conclusions: The sensitivity of frozen-section diagnosis of LMP and malignant mucinous tumors was low. The inaccuracy of a frozen-section diagnosis of ovarian mucinous tumors may be related to a tumor size of greater than 13 cm. Increasing the number of intraoperative samples over 3 sections per case may not effectively increase the accuracy of frozen-section diagnosis in mucinous tumors.

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Scalpel versus electrosurgery for abdominal incisions.

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Backgrond: Scalpels or electrosurgery can be used to make abdominal incisions. The potential benefits of electrosurgery include reduced blood loss, dry and rapid separation of tissue, and reduced risk of cutting injury to surgeons, though there are concerns about poor wound healing, excessive scarring, and adhesion formation.

Objectives: To compare the effects on wound complications of scalpel and electrosurgery for making abdominal incisions.

Search methods: We searched the Cochrane Wounds Group Specialised Register (searched 24 February 2012); The Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library 2012, Issue 2); Ovid MEDLINE (1950 to February Week 3 2012); Ovid MEDLINE (In-Process & Other Non-Indexed Citations 23 February 2012); Ovid EMBASE (1980 to 2012 Week 07); and EBSCO CINAHL (1982 to 17 February 2012). We did not apply date or language restrictions.

Selection criteria: Randomised controlled trials (RCTs) comparing the effects on wound complications of electrosurgery with scalpel use for the creation of abdominal incisions. The study participants were patients undergoing major open abdominal surgery, regardless of the orientation of the incision (vertical, oblique, or transverse) and surgical setting (elective or emergency). Electrosurgical incisions included those in which the major layers of abdominal wall, including subcutaneous tissue and musculoaponeurosis (a strong sheet of fibrous connective tissue that serves as a tendon to attach muscles), were made by electrosurgery, regardless of the techniques used to incise the abdominal skin and peritoneum. Scalpel incisions included those in which all major layers of abdominal wall including skin, subcutaneous tissue, and musculoaponeurosis, were incised by a scalpel, regardless of the techniques used on the abdominal peritoneum.

Data collection and analysis: We independently assessed studies for inclusion and risk of bias. One review author extracted data which were checked by a second review author. We calculated risk ratio (RR) and 95% confidence intervals (CI) for dichotomous data, and difference in means (MD) and 95% CI for continuous data. We examined heterogeneity between studies.

Main results: We included nine RCTs (1901 participants) which were mainly at unclear risk of bias due to poor reporting. There was no statistically significant difference in overall wound complication rates (RR 0.90, 95% CI 0.68 to 1.18), nor in rates of wound dehiscence (RR 1.04, 95% CI 0.36 to 2.98), however both these comparisons are underpowered and a treatment effect cannot be excluded. There is insufficient reliable evidence regarding the effects of electrosurgery compared with scalpel incisions on blood loss, pain, and incision time.

Authors' conclusions: Current evidence suggests that making an abdominal incision with electrosurgery may be as safe as using a scalpel. However, these conclusions are based on relatively few events and more research is needed. The relative effects of scalpels and electrosurgery are unclear for the outcomes of blood loss, pain, and incision time.

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Factors affecting operative blood loss from open radical hysterectomy and pelvic lymphadenectomy for early-stage cervical cancer.

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Objectives: To evaluate the effect of clinical and tumor factors on operative blood loss during open radical hysterectomy and pelvic lymphadenectomy for early-stage cervical cancer.

Methods: Clinical, pathological, and operative data of 456 women with cervical cancer stage IA2-IIA who had open radical hysterectomy with bilateral pelvic lymphadenectomy (RHPL) from January 2003 to December 2005 were reviewed with regard to operative blood loss of 600 ml or more.

Results: Parity (RR 1.67; 95 % CI 1.02-2.73; p value 0.04) and salpingo-oophorectomy (RR 1.57; 95 % CI 1.06-2.31; p value 0.02) were statistically associated with operative blood loss of 600 ml or more from multivariate analysis. Preoperative chemotherapy (RR 1.87; 95 % CI 1.18-2.96; p value < 0.01) and BMI ≥ 25 kg/m(2) (RR 1.73; 95 % CI 1.08-2.75; p value 0.02) were significantly associated with blood loss of more than 1,000 ml in the multivariate analysis.

Conclusion: High parity (3 or more) and incidental salpingo-oophorectomy are related to an increased risk of operative blood loss of 600 ml or more during open RHPL. However, the effects were marginal and no clear explanation for the underlying mechanisms is available. Preoperative chemotherapy and overweight were independent predictors of operative blood loss of more than 1,000 ml.

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Pelvic node removal and disease-free survival in cervical cancer patients treated with radical hysterectomy and pelvic lymphadenectomy.

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Objective: To examine the relationship between the number of pelvic nodes removed and 5-year disease-free survival in early-stage cervical cancer patients who underwent radical hysterectomy and pelvic lymphadenectomy (RHPL).

Methods: The medical records of 826 cervical cancer patients who underwent RHPL and who had at least 11 pelvic nodes removed at Chiang Mai University Hospital between January 2002 and December 2008 were reviewed. The patients were divided into 4 groups according to the number of nodes removed: 11-20 nodes (n=243); 21-30 nodes (n=344); 31-40 nodes (n=171); and ≥ 41 nodes (n=68). The 5-year disease-free survival of patients in each group was compared. The clinicopathological factors were analyzed using Cox regression to identify independent prognostic factors.

Result: Five-year disease-free survival was not significantly different among the 4 groups. When patients with and without nodal involvement were considered separately, the 5-year disease-free survival in all groups was not significantly different. At multivariate analysis, the number of pelvic nodes removed was not an independent prognostic factor.

Conclusion: The number of pelvic nodes removed was not associated with 5-year disease-free survival or number of positive pelvic nodes.

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