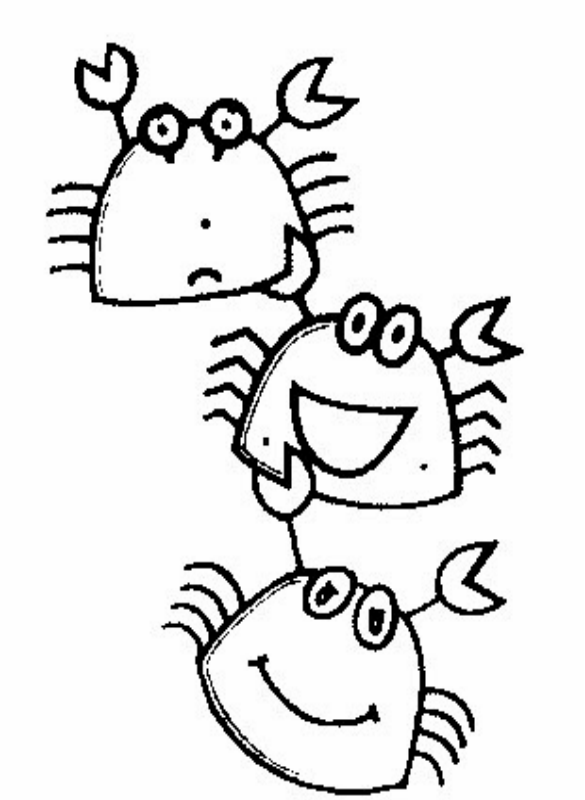
ANNUAL REPORT
ON
GYNECOLOGIC ONCOLOGY
2009



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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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. Our department divides into three long standing 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 2009 on gynecologic oncology has been successfully published with great contribution of Associate 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.

Finally, I would be remiss if I did not underscore the fact that our work over many years would not have been great success without the extraordinary generosity of so many individuals of our staff. I am grateful for these supports and gratefully acknowledge Associate Professor Prapaporn and gynecologic oncology team for ongoing this report.

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PREFACE

This Annual Report 2009 is the thirteenth volume of our work in gynecologic oncology. We served around 750 gynecologic cancer patients in 2009 which slightly decreased from the last year's number. The leading cancer is still cervical cancer, followed by ovarian and uterine cancers.

About 108 Wertheim operations were performed in our hospital. Of these, five cases were carried out via the laparoscopic approach. In this year The numbers of the gynecologic cancer in each organ were not different from year 2008. Fourteen original studies were published in the peer-reviewed journals in 2009.

This report is divided into 2 sections. The first section provides the statistics of all gynecologic cancer patients in the year 2009 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 2009.

There are a lot of good events happened in 2009, such as Professor Jatupol Srisomboon has been appointed the Chairman of Gynaecologic Oncology Committee of the Royal Thai College of Obstetricians and Gynaecologists, Assoc. Professor Kittipat Charoenkwan received the great honor award "Chiang Mai University Award for the Outstanding Young Researcher in Health Sciences (Golden Elephant) 2009" , Dr. Chumnan Kietpeerakool graduated from the training in "International Diploma Course in Research Methodology and Biostatistics Program"; and I was invited as a speaker in XIX FIGO World Congress. 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
  - Cancer of The Vagina
  - Cancer of The Fallopian Tube
  - Cancer of The Peritoneum
  - Gestational Trophoblastic Disease

TABLE 1 : Gynecologic Oncology Registry :Chiang Mai University 1997-2009

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 1997-2009 (continue)

Site	2007 Number (%)	2008 Number (%)	2009 Number (%)
Cervix	480 (63.6)	473 (63.2)	426 (59.1)
Ovary	132 (17.5)	115 (15.2)	128 (17.8)
Corpus	91 (12.0)	117 (15.4)	112 (15.5)
Vulva	11 (1.5)	21 (2.8)	22 (3.1)
Vagina	6 (0.7)	7 (0.9)	7 (1.0)
FT	7 (0.9)	4 (0.5)	4 (0.6)
PPA	11 (1.5)	7 (0.9)	8 (1.1)
GTT	17 (2.3)	15 (2.0)	14 (1.9)
Total	**755 (100)**	**759 (100)**	**721 (100)**

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

Gynecologic Oncology Multiple Primary Cancers : Chiang Mai University 2000-2009

Multiple Primary Cancers	2000 Number	2001 Number	2002 Number	2003 Number	2004 Number	2005 Number	2006 Number	2007 Number	2008 Number	2009 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
Corpus and Cervical Cancer	-	-	1	-	-	1	-	1	-	-
Corpus and Fallopian Tube Cancer	-	-	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
Ovarian and Fallopian Tube and Corpus Cancer	-	-	-	-	-	-	1	1	-	-

Operations and Procedures in Gynecologic Oncology

Operations and Procedures	1997 Number	1998 Number	1999 Number	2000 Number	2001 Number	2002 Number	2003 Number	2004 Number	2005 Number	2006 Number
Surgery for Ovarian & Tubal CA.	64	43	64	70	45	69	88	79	80	111
Surgery for Corpus CA.	33	28	26	36	43	39	47	60	75	53
Surgery for Vulvar CA.	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

CA = Carcinoma

LEEP = Loop Electrosurgical Excision Procedure

Operations and Procedures in Gynecologic Oncology (continue)

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

CA = Carcinoma

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	6	1.4
31-40	59	13.8
41-50	143	34.6
51-60	135	31.7
61-70	54	12.7
71-80	23	5.4
81-90	6	1.4
Total	**426**	**100.0**

Minimum age 24 years, Maximum age 85 years
Mean age 51.72±11.12 year

Recurrent = 10 cases.

TABLE 3 : Cancer of The Cervix : Parity Distribution.

Parity	Number	Percent
0	24	5.6
1	89	20.9
2	163	38.3
3	68	16.0
4	37	8.7
5	20	4.7
6	11	2.6
7	7	1.6
8	2	0.5
9	4	0.9
12	1	0.2
Total	**426**	**100.0**

TABLE 4 : Cancer of The Cervix: Stage Distribution.

Stage	Number	Percent
I	168	39.4
II	132	31.0
III	103	24.2
IV	23	5.4
Total	**426**	**100.0**

Recurrent = 10 cases.

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

	Stage	Number	Percent
I	IA1	35	8.2
	IA2	12	2.8
	IB	1	0.2
	IB1	99	23.2
	IB2	21	4.9
II	IIA	31	7.3
	IIB	101	23.7
III	IIIA	6	1.4
	IIIB	96	22.5
	IIIC	1	0.2
IV	IVA	7	1.6
	IVB	16	3.8
Total		**426**	**100.0**

Recurrent = 10 cases.

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

Stage	Number Negative (%)	Number Positive HIV(%)	Unknown(%)	Total
IA1	30(7.0)	4(0.9)	1(0.2)	35.0(8.2)
IA2	12(2.8)	-	-	12.0(2.8)
IB	1(0.2)	-	-	1.0(0.2)
IB1	95(22.3)	3(0.7)	1(0.2)	99.0(23.2)
IB2	20(4.7)	-	1(0.2)	21.0(4.9)
IIA	27(6.3)	2(0.5)	2(0.5)	31.0(7.3)
IIB	94(22.1)	5(1.2)	2(0.5)	101.0(23.7)
IIIA	6(1.4)	-	-	6.0(1.4)
IIIB	90(21.1)	3(0.7)	3(0.7)	96.0(22.5)
IIIC	1(0.2)	-	-	1.0(0.2)
IVA	6(1.4)	1(0.2)	-	7.0(1.6)
IVB	13(3.1)	3(0.7)	-	16.0(3.8)
Total	**395(92.7)**	**21(4.9)**	**10(2.3)**	**426(100)**

Recurrent = 10 cases.

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

Histological Type	Number	Percent
Squamous cell carcinoma	**345**	**81.0**
Well differentiated	36	8.5
Moderately differentiated	194	45.5
Poorly differentiated	57	13.4
Not define differentiated	58	13.6
Adenocarcinoma	**62**	**14.6**
Adenosquamous	**9**	**2.1**
Small cell Neuroendocrine CA	**5**	**1.2**
Mixed large cell NE& mucinous adenoCA	**1**	**0.2**
Mixed NE CA and mucinous adenoCA	**1**	**0.2**
PD carcinoma with predominant sarcomatoid features	**1**	**0.2**
Adenoid basal CA	**1**	**0.2**
Unknown*	**1**	**0.2**
Total	**426**	**100.0**

* Unknown = refer from other hospital : 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	**96**	**22.5**
RH+BPL	65	15.3
LRHPL	3	0.7
Extended hysterectomy	11	2.5
Extrafacial Hysterectomy	17	4.0
Chemotherapy alone	**12**	**4.8**
Radiation alone	**65**	**15.3**
Concurrent chemoradiation	**125**	**29.3**
RT+Brachytherapy	**16**	**3.8**
Brachytherapy	**8**	**1.9**
Combined treatment	**63**	**14.8**
TAH+RT[1]	4	0.9
TAH+Brachytherapy	1	0.2
TAH+CCRT[2]	7	1.6
TAH+Sequential RT	1	0.2
RH+Brachytherapy	4	0.9
RH+RT	6	1.4
RH+CCRT	13	3.0
RH+CT	2	0.5
LRHPL+RT	1	0.2
LH+CCRT	1	0.2
CCRT+Extrafacial hysterectomy+uppervaginectomy[3]	1	0.2
Subtotal hysterectomy+ RT	1	0.2
Extended hysterectomy+Brachythrapy	1	0.2
Extended hysterectomy+CCRT	2	0.5
Abandoned hysterectomy+ CCRT	1	0.2
NAC+RH	9	2.1
NAC+RH+CCRT	4	0.9
NAC+Extrafacial hysterectomy with pelvic lymphadenectomy[4]	1	0.2
NAC awaiting for surgery	3	0.7
Others		
Supportive & Symptomatic treatment	6	1.4
Loss to FU without treatment	9	2.1
Refer to other hospitals for treatment	8	1.8
Awaiting surgery	4	0.9
Awaiting Investigation	5	1.4
Awaiting start RT	6	1.4
Surveillance only[5]	2	0.5
Total	**426**	**100.0**

[1] = Inadvertent Hysterectomy from CMU 1 case, from other hospitals 3 cases

[2] = Inadvertent Hysterectomy from CMU 1 case, from other hospitals 6 cases(Subtotal Hysterectomy 1 case)

[3] = CA cervix stage IB2 with persistent lesion after CCRT

[4] = CA cervix stage IIB with perforation at uterine isthmus

[5] = Previous treatment from other hospital

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

N.B. Number of Radical Hysterectomy & BPL = 103 cases

Awaiting Investigation	1 case	HN 1600905
Chemotherapy alone	5 cases	HN 3218004, 3220423, 3205934, 3186872, 3160159
Radiation alone	2 case	HN 3189895, 3232014
CCRT	1 case	HN 3215083
Loss to FU without treatment	1 case	HN 2854240

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
<20	4	3.1
21-30	9	7.0
31-40	13	10.2
41-50	37	28.9
51-60	40	31.3
61-70	19	14.8
71-80	5	3.9
>80	1	0.8
Total	**128**	**100.0**

Minimum age 16 years, Maximum age 82 years
Mean age 49.34±13.67 years
Recurrent 13 cases

TABLE 10 : Cancer of The Ovary : Parity Distribution.

Parity	Number	Percent
0	48	37.5
1	22	17.2
2	37	28.9
3	9	7.0
4	5	3.9
5	1	0.8
6	2	1.6
7	2	1.6
8	1	0.8
13	1	0.8
Total	**128**	**100.0**

TABLE 11 : Cancer of The Ovary : Histological Distribution.

Histology	Number	Percent
Epithelium	99	77.3
Germ Cell	13	10.2
Sex cord-stromal	9	7.0
Others	3	2.3
Unknown*	4	3.1
Total	**128**	**100.0**

***Unknown = Due undergoing surgery**

TABLE 12 : Epithelial Ovarian Cancer : Histological Subtype Distribution.

Histological Subtype	Number	Percent
Serous LMP	4	4.0
Serous adeno CA	21	21.2
Mucinous LMP	16	16.2
Mucinous adeno CA	9	9.1
Endometrioid LMP	2	2.0
Endometrioid CA	15	15.2
Clear cell CA	21	21.2
Mixed epithelial CA	6	6.1
Early Invasive adeno CA	1	1.0
Transitional cell CA	1	1.0
Undifferentiated carcinoma	2	2.0
Metastatic mucin producing adeno CA	1	1.0
Total	**99**	**100.0**

LMP = Low malignant potential
CA = carcinoma

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

Histological Subtype	Number	Percent
Dysgerminoma	3	23.1
Immature teratoma	3	23.1
Yolk sac tumor	5	38.5
SCCA MD arising in mature cystic teratoma	2	15.4
Total	**13**	**100.0**

SCCA = Squamous cell carcinoma
MD = Moderately differentiated

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

Subtype	Number	Percent
Adult granulosa cell tumor	7	77.8
Scherosing stromal tumor	1	11.1
Unclassified sex cord stromal tumor	1	11.1
Total	**9**	**100**

TABLE 15 : Others : Histological Subtype Distribution.

Subtype	Number	Percent
Cellular myxoma of LMP	1	33.3
Carcinosarcoma	1	33.3
Metastatic tumor with carcinomatous type	1	33.3
Total	**3**	**100**

LMP = Low malignant potential

TABLE 16 : Epithelial Ovarian Cancer : Stage Distribution.

Stage	Number	Percent
IA	21	21.2
IB	1	1.0
IC	34	34.3
IIA	2	2.0
IIC	7	7.1
IIIA	2	2.0
IIIB	1	1.0
IIIC	22	22.2
IV	9	9.1
Total	**99**	**100**

Recurrent 13 cases

TABLE 17 : Germ Cell Ovarian Cancer: Stage Distribution.

Stage	Number	Percent
IA	5	38.5
IC	5	38.5
IIIA	1	7.7
IIIC	2	15.4
Total	**13**	**100.0**

TABLE 18 : Sex cord-stromal : Stage Distribution.

Stage	Number	Percent
IC	6	66.7
IIB	1	11.1
IIIB	1	11.1
IIIC	1	11.1
Total	**9**	**100.0**

TABLE 19 : Others : Stage Distribution.

Stage	Number	Percent
IA	1	33.3
IIIC	1	33.3
IV	1	33.3
Total	3	100

TABLE 20 : Ovarian Cancer : Stage and Histology Distribution.

	Epithelial	Percent	Germ cell	Percent	Sex cord stromal tumor	Percent	Others	Percent
IA	21	21.2	5	38.5	0	0.0	1	33.3
IB	1	1.0	0	0.0	0	0.0	0	0.0
IC	34	34.3	5	38.5	6	66.7	0	0.0
IIA	2	2.0	0	0.0	0	0.0	0	0.0
IIB	0	0.0	0	0.0	1	11.1	0	0.0
IIC	7	7.1	0	0.0	0	0.0	0	0.0
IIIA	2	2.0	1	7.7	0	0.0	0	0.0
IIIB	1	1.0	0	0.0	1	11.1	0	0.0
IIIC	22	22.2	2	15.4	1	11.1	1	33.3
IV	9	9.1	0	0.0	0	0.0	1	33.3
Total	**99**	**100.0**	**13**	**100.0**	**9**	**100.0**	**3**	**100.0**

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

Treatment	Number	Percent
Complete SSP with adjuvant chemotherapy	27	21.1
Complete SSP without adjuvant chemotherapy	12	9.4
Incomplete SSP with adjuvant chemotherapy	42	32.8
Incomplete SSP without adjuvant chemotherapy	21	16.4
NAC with Incomplete SSP with adjuvant chemotherapy	9	7.0
NAC with Complete SSP with adjuvant chemotherapy	1	0.8
NAC + Interval debulking	9	7.0
Chemotherapy alone*	6	4.7
Supportive &Symptomatic treatment	1	0.8
Total	**128**	**100.0**

SSP = Surgical Staging Procedure

NAC = Neoadjuvant Chemotherapy

* - Receiving chemotherapy waiting for interval debulking 1 case
- Refused surgery 1 case
- Died after chemotherapy 2 cases
- Lost to follow up 2 cases

TABLE 22 : Ovarian Cancer : Outcome of Treatment.

Outcome	Number	Percent
Under FU without disease	65	50.8
Under FU with partial response	4	3.1
During treatment	35	27.3
During treatment with progresion/persistance of disease	5	3.9
Loss to FU	11	8.6
Supportive &symptomatic treatment	3	2.3
Refered to other hospitals for treatment/FU*	3	2.3
Death	2	1.6
Total	**128**	**100.0**

FU = Follow up

*

- Stage IIIC s/p NAC+TAH&BSO referred for chemotherapy at Chiang Rai Hospital =1 case
- Stage IA s/p TAH&BSO + partial omentectomy+ peritoneal washing referred to Fang Hospital for FU post operation =1 case
- Stage IC s/p TAH&BSO+partial omentectomy referred to Chiang Rai Hospital for FU 1 case

NAC = Neoadjuvant Chemotherapy
TAH&BSO = Trans abdominal hysterectomy and bilateral salpingo-oophorectomy
s/p = status post

Cancer of The Uterine Corpus

➢ Distribution by

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

TABLE 23 : Cancer of The Corpus : Age Distribution.

Age	Number	Percent
<20	1	0.9
20-30	0	0.0
31-40	6	5.4
41-50	21	18.8
51-60	55	49.1
61-70	24	21.4
71-80	3	2.7
>81	2	1.8
Total	**112**	**100.0**

Minimum age 18 years, Maximum age 81 years
Mean age 55.34± 9.52 years

Recurrence 4 cases

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

Menopausal Status	Number	Percent
Yes	73	66.1
No	38	33.9
Total	**112**	**100.0**

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

Medical disease	Number	Percent
None	87	77.7
Hypertension	11	9.5
Hypertension+ DM	5	4.3
Hypertension+ DM+ Dyslipid	1	0.9
Hypertension+ DM+ Heart disease	1	0.9
DM	4	3.6
Heart disease	1	0.9
Thyrotoxicosis	1	0.9
Asthma	1	0.9
Total	**112**	**100.0**

DM = Diabetes mellitus

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

Parity	Number	Percent
0	41	36.6
1	12	10.7
2	33	29.5
3	16	14.3
4	4	3.6
5	2	1.8
6	1	0.9
8	2	1.8
9	1	0.9
Total	**112**	**100.0**

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

	Stage	Number	Percent
I	IA	10	8.9
	IB	20	17.9
	IC	14	12.5
II	IIA	5	4.5
	IIB	7	6.3
III	IIIA	13	11.6
	IIIC	24	21.4
IV	IVA	2	1.8
	IVB	10	8.9
Unknown*		7	6.3
	Total	**112**	**100**

Unknown* = waiting for surgery = 4 cases
= no surgery = 3 cases

TABLE 28 : Cancer of The Corpus : Histologic Distribution.

Histology Type	Number	Percent
Endometrioid adenoCA		
Grade I	45	40.2
Grade II	19	17.0
Grade III	17	15.2
Carcinosarcoma	6	5.4
Adenosarcoma	2	1.8
Low grade ESS	3	2.7
High grade ESS	1	0.9
Leiomyosarcoma	5	4.5
Serous adenoCA	1	0.9
Mixed type	12	10.7
Undifferentiated carcinoma	1	0.9
Total	**112**	**100.0**

ESS = Endodermal sinus tumor
CA = carcinoma

TABLE 29 : Treatment of Corpus Cancer.

Treatment	Number	Percent
complete SSP	18	16.1
complete SSP+ RT	6	5.4
complete SSP+ CT	14	12.5
complete SSP+RT+Brachytherapy	8	7.1
complete SSP+Brachytherapy	13	11.6
complete SSP+ Sequential chemo-RT	7	6.3
complete SSP+ Sequential chemo-RT+Brachytherapy	1	0.9
complete SSP+RT+Brachy+CT[1]	1	0.9
Incomplete SSP	10	8.9
Incomplete SSP+RT	4	3.6
Incomplete SSP+CT	5	4.5
Incomplete SSP+Brachytherapy	1	0.9
Incomplete SSP+ Sequential chemo-RT	6	5.4
Incomplete SSP+RT+Brachytherapy	4	3.6
Incomplete SSP plan Sequential chemo-RT Loss FU	1	0.9
Incomplete SSP plan RT+Brachytherapy Loss FU	1	0.9
Incomplete SSP awaiting for RT conference	1	0.9
CT+ Incomplete SSP+ RT	1	0.9
RT+ Brachy[2]	1	0.9
CT alone[2]	2	1.8
Surveillance only[3]	1	0.9
Awaiting surgery	4	3.6
Awaiting RT conference	2	1.8
Total	**112**	**100.0**

[1] = Persistent disease after complete SSP+RT+Brachy admit for chemotherapy

[2] = Inoperable advanced stage

[3] = Previous surgery from other hospital

SSP = Surgical Staging Procedure

RT = Radiation Therapy

CT = Chemotherapy

TABLE 30: Outcome of Treatment of Corpus Cancer.

Outcome	Number	Percent
During treatment	49	43.8
During treatment with progression/persistence of disease	2	1.8
Under FU without disease	44	39.3
Under FU with partial response	2	1.8
Under FU with disease	1	0.9
Lost to FU with disease	11	9.8
Palliative/symptomatic treatment	1	0.9
Death	1	0.9
Referred to other hospitals for FU after treatment	1	0.9
Total	**112**	**100.0**

FU = Follow up

Cancer of The Vulva

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

TABLE 31 : Cancer of The Vulva : Age Distribution.

Age	Number	Percent
<40	1	4.5
41-50	5	22.7
51-60	5	22.7
61-70	5	22.7
71-80	5	22.7
>81	1	4.5
Total	**22**	**100.0**

Minimum age 39 year, Maximum age 84
Mean age 61.29± 13.61 year

Recurrence 2 cases

TABLE 32 : Cancer of The Vulva : Stage Distribution.

Stage	Number	Percent
IA	3	13.6
IB	3	13.6
II	10	45.5
III	3	13.6
IVA	2	9.1
IVB	1	4.5
Total	**22**	**100.0**

Recurrence 2 cases

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

Histological Type distribution	Number	Percent
SCCA		
Well differentiated	11	50.0
Moderately differentiated	3	13.6
Undifferentiated	4	18.2
Epitheloid sarcoma	1	4.5
Mixed basal cell CA and SCCA	1	4.5
Small cell CA- (undifferentiated type)	1	4.5
Verrucous CA	1	4.5
Total	**22**	**100.0**

SCCA = Squamous cell carcinoma
CA = Carcinoma

TABLE 34 : Treatment of cancer of the vulva.

Treatment	Number	Percent
WLE	2	9.1
WLE + CCRT	1	4.5
Radical local excision+ BGND	1	4.5
Radical local excision+ BGND+ RT	3	13.6
Radical hemivulvectomy+ BGND	4	18.2
Radical hemivulvectomy+BGND+ RT	2	9.1
Skinning vulvectomy	1	4.5
BGND	2	9.1
NAC plan BGND	1	4.5
CCRT	1	4.5
RT	2	9.1
Lost to FU without treatment	1	4.5
Awaiting treatment (during receiving anti-TB drug)	1	4.5
Total	**22**	**100.0**

WLE = Wide local excision
BGND = Bilateral groin node dissection
RT = Radiation therapy
CCRT = Concurrent chemoradiation
FU = Follow up
TB = Tuberculosis

Cancer of The Vagina

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

TABLE 35 : Cancer of The Vagina 2009.

No	HN	Age	Stage	Histology	Treatment
1	3092362	60	IIB	SCCA Poorly differentiated	Lost to FU
2	3161861	40	I	SCCA Undifferentiated	RT
3	3195040	78	II	SCCA Well differentiated	RT
4	3238301	67	IV	SCCA Moderately differentiated	RT
5	3243839	57	I	Malignant melanoma	Awaiting surgery
6	3245754	54	II	Malignant melanoma	Brachytherapy

SCCA = squamous cell carcinoma
RT = Radiation Therapy
FU = Follow up

Cancer of The Fallopian Tube

TABLE 36 : Cancer of The Fallopian Tube 2009

Data	Case 1	Case 2	Case 3	Case 4
HN	3243576	3178628	2806310	3225925
Age	51	56	57	62
Marital status	married	married	married	married
Parity	2	0	2	2
Presenting symptoms	Abdominal distention	Discharge per vagina	FU rising CA125	Abdominal distention+adnexal mass
Stage	IIA recurrent	IIIC	IIC recurrent	IIIC
Histology	Serous adenoCA	Serous adenoCA	PD serous adenoCA	PD serous adenoCA
Treatment	Admit.for investigation (CT scan, FNA)	TAH&BSO + PTx6	Caelyx x1 + Optimal debulking+ Caelyx x5	NAC(PT)+TAH& BSO+ PT
Outcome	During Investigation	Under FU, without disease	Under FU, without disease	During treatment

CA = Carcinoma
TAH&BSO = Tran abdominal hysterectomy and bilateral salpingooophorectomy
FNA = Fine needle aspiration
NAC = Neoadjuvant chemotherapy
PT =Paclitaxel and Carboplatin
PD = Poorly differentiated
FU = Follow up

Cancer of The Peritoneum

TABLE 37 : Cancer of The Peritoneum 2009

Data	Case 1	Case 2	Case 3	Case 4
HN	3147914	3188253	2652790	3233811
Age	68	44	65	59
Marital status	married	married	single	married
Parity	2	3	0	0
Presenting symptoms	Abdominal distention	Abdominal distention	Abdominal distention	Abdominal distention
Stage	IIIC	IIIC	IIIC	Waiting for surgery
Histology	PD serous adenoCA	MD serous adenoCA	PD serous adenoCA	AdenoCA
Treatment	PTx3 ->Oral Etoposide-> Suboptimal debulking -> Gemcitabine C1W2	PTx3 +Interval debulking + PTx3	Intracolic omentectomy + PT	NAC(PT)
Outcome	Loss FU since 29/5/52	Under FU without disease	During Treatment	During Treatment

Cancer of The Peritoneum 2009. (continue)

Data	Case 5	Case 6	Case 7	Case 8
HN	3221826	3167971	3222049	2676514
Age	53	67	43	66
Marital status	married	married	married	married
Parity	2	0	1	5
Presenting symptoms	Abdominal distention	Abdominal distention, Abdominal pain	Abdominal distention	Recurrent PPA rising CA125
Stage	IIIC	IIIC	IIIC	IIIC
Histology	PD serous adenoCA	PD serous adenoCA	serous adenoCA	PD CA
Treatment	PTx3 + Interval debulking (TAH&BSO+ partial omentectomy)+ PT	PTx3 + Interval debulking(TAH& BSO+remove tumor plaque in CDS)+ PTx3	NAC + Suboptimal Sx(Rt.SO+omentectomy+ascites colloeciton + PT	Oral Etoposide
Outcome	During treatment	Under FU without disease	During treatment	During treatment

BPNS = Bilateral pelvic node sampling
RT = Radiation therapy
PT = Paclitaxel + Carboplatin
CDS = Cul-de-sac
Rt.SO = Right salpingo-oophorectomy
PPA = Primary peritoneal adenocarcinoma
NAC = Neoadjuvant chemotherapy
TAH&BSO = Trans abdominal hysterectomy and bilateral salpingo-oophorectomy

Cancer of Two Primaries in Female Genital system

TABLE 38 : Cancer of The Two Primaries in Female Genital system 2009

Data	Case 1 CA Tube +CA Ovary	Case 2 CA Corpus+ CA Ovary	Case 3 CA Corpus + CA Ovary
HN	2402720	1259549	3163892
Age	63	52	53
Marital status	married	married	married
Parity	4	1	2
Presenting symptoms	Abdominal mass	Abdominal mass	Abdominal mass
Stage	CA Tube IIIC, CA Ovary IIIC	CA Corpus IB, CA Ovary IC	CA Corpus IA, CA Ovary IIC
Histology	Rt.tube: PD Serous adenoCA Both ovaries: PD Serous adenoCA	Corpus: Endometrioid CA Ovary : Endometrioid LMP	Corpus: Mixed Serous and Endometrioid CA gr.3 Ovary : WD Mixed Serous adenoCA
Treatment	Suboptimal debulking (BSO) + PT x6	Complete staging 12/9/52 +Carbo x1 ->Cisplatin x2	Suboptimal debulking (TAH&BSO+ omentectomy)+ PTx9
Outcome	Under FU with partial response	During treatment	Under FU with partial response

Cancer of The Two Primaries in Female Genital system (continue)

Data	Case 4 ChorioCA +CA Corpus	Case 5 CA Corpus+ CA Ovary	Case 6 CA Corpus+ CA Ovary
HN	3165300	3177649	3217669
Age	58	66	39
Marital status	married	married	married
Parity	3	0	0
Presenting symptoms	AUB	Abdominal pain	AUB, Abdominal pain
Stage	ChorioCA III, CA Corpus IB	CA Corpus IA, CA Ovary IC	CA Corpus IB, CA Ovary IA
Histology	Corpus: Composite chorioCA 90% + Endometrioid adenoCA	Corpus: Endometrioid CA gr.1 Ovary : Endometrioid gr.1	Corpus: Endometrioid CA gr.1 Ovary : Endometrioid gr.1
Treatment	Complete staging 8/3/52 EMA-Cox4 -> PI x4 -> WBRT+small field RT ->Paclitaxel	Complete staging 3/4/52 + Carbo x6	TLH&Rt.SO+BPNS+ PANS +omental biopsy
Outcome	During treatment	Under FU without disease	Under FU without disease

TAH&BSO	Transabdominal hysterectomy and bilateral salpingo-oophorectomy		
TLP	Total laparoscopic hysterectomy		
WD	Well differentiated	BPNS	Bilateral pelvic node sampling
PD	Poorly differentiated	PANS	Paraaortic node sampling
CA	carcinoma	LMP	Low malignant potential
PI	Ciaplatin+ Ifosfamide	WBRT	Whole brain radiation
RT	Radiation therapy		

Cancer of The Two Primaries in Female Genital system (continue)

Data	Case 7 CA Corpus+ CA Tube	Case 8 CA Corpus+ CA Ovary
HN	3219039	3226628
Age	59	46
Marital status	married	married
Parity	1	2
Presenting symptoms	Discharge per vagina	AUB
Stage	CA Corpus IB1, CA Tube IA	CA Corpus IIB, CA Ovary IC
Histology	Corpus: WD, serous adenoCA Rt.Tube : mixed transitional cell CA+ adenoCA	Corpus: Endometrioid CA gr.3 Ovary: Mixed Endometrioid CA gr.3 +Clear cell CA
Treatment	TAH&BSO+BPNS+ PANS +omentectomy+ peritoneal washing + PT	EHPL&BSO+BPNS+ mesenchymal biopsy
Outcome	During treatment	During treatment

BPNS = Bilateral pelvic node sampling
RT = Radiation therapy
PT = Paclitaxel + Carboplatin
EHPL = Extended hysterectomy and pelvic lymphadenectomy

Gestational Trophoblastic Disease

- Gestational Trophoblastic Tumor
- Molar Pregnancy

TABLE 39 : Gestational Trophoblastic Tumors in 2009.

No	HN	Age (yr)	Initial HCGtiter	Prognosis Classification	Diagnosis	FIGO	Treatment	Result
1	3151992	25	138,000	NMGTT	Choriocarcinoma (Patho from D&C)	I	EMA x6	Remission
2	3165177	27	Unknown*	MGTT (lung)	Choriocarcinoma (Patho from D&C)	III	EMA-CO x5 -> PI x3, ICE x1	Lost to FU
3	2655380	55	175,800	MGTT (lung)	Choriocarcinoma (Patho from S&C)	III	EMA x5 -> EMA-CO x6	Under treatment
4	3217508	52	94,000	NMGTT	Choriocarcinoma	I	TAH&BSO -> MTX+FA	Under treatment
5	3228941	47	424,844	NMGTT c MTX resistant	Persistent mole(Patho from S&C)	I	Actinomycin D x4	Under treatment
6	3218942	25	433,000	NMGTT	Choriocarcinoma	I	MTX+FA x1	Lost to FU
7	3173589	33	819,600	MGTT (lung)	Persistent mole(Patho from S&C)	III	MTX+FA x1 ->EMA x2 -> PI x1 -> 5FU+ Actinomycin D	Under treatment
8	3175873	56	65,970	MGTT (brain)	Choriocarcinoma (Patho from Lt.cerebella tumor Bx)	IV	WBRT 300 cGy x20 -> EMA x5 -> EMA-CO x3 -> WBRT x2	Lost to FU
9	3201442	32	4,214,000	MGTT (lung)	Invasive mole (Patho from S&C)	III	MTX x5 -> Acinomycin D x4	Under treatment
10	2843673	39	25,612	NMGTT	Persistent mole(Patho from S&C)	I	Failed MTX -> Actinomycin D x4	Remission
11	3165300	58	17,160	MGTT (brain)	Choriocarcinoma +Endometrioid adenoCA gr.3 (Patho from TAH&BSO)	III	TAH&BSO ->EMA-CO x4-> PI x4 ->WBRT ->small field pelvis RT ->PT	Under treatment
12	3181647	52	1,459,000	MGTT (lung)	Persistent mole(Patho from S&C)	III	Actinomycin D x5	Remission
13	3244202	22	5,612	NMGTT	Persistent mole	I	MTX	Under treatment
14	3031576	56	402	Recurrent NMGTT	Persistent mole	I	EMA	Under treatment

* = No data available but after the first chemotherapy, the B-HCG was 760 IU/L

MGTN = Metastatic Gestational Trophoblastic tumor

NMGTN = Non-metastatic Gestational Trophoblastic tumor

CCA = Chorio carcinoma

Act D = Actinomycin D

MTX + FA = Methotrexate + Folinic Acid

S&C = suction curettage

EMA = Etoposide + Methotrexate + Actinomycin D

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

PI = Cisplatin + Ifosfamide

TABLE 40 : Molar Pregnancy in 2009.

No	HN	Age	Gravida	GA (wk)	UT Size (wk)	HCG titer	Risk	Treatment	Pathology	Result
1	3160582	27	G6 P 4-1-0-2	10^{+5}	16	637,300	High risk	Suction & curettage	Complete hydatidiform mole	Lost to FU
2	3181647	52	G2 P 1-0-1-1	unknown	16	117,600	High risk	Suction & curettage	Complete hydatidiform mole	Persistent mole
3	3201442	32	G2 P 1-0-0-1	18	14	4,124,000	High risk	Suction & curettage	Complete hydatidiform mole	Persistent mole
4	2731338	48	G2 P 1-0-0-1	8^{+3}	12	483,300	High risk	TAH &BSO	Invasive hydatidiform mole	Remission
5	2940084	32	G2 P 1-0-0-1	unknown	16	622,500	High risk	Suction & curettage	Complete hydatidiform mole	Persistent mole

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

SECTION II

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

Medical Personnel and Facilities

TABLE 41 : Medical Personnel and Facilities in Division of Gynecologic Oncology, Chiang Mai University

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

Funds (กองทุนของหน่วยมะเร็งวิทยานรีเวช)

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

1st Year Fellow

- Siraprapa Supadilokluck, M.D.
- Korapin Radtanasadjatum, M.D.

2nd Year Fellow

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

Visiting Fellow - Sitthysack Panyavatthanasinh (Laos PDR)
- Mary Makanyang (Malasia)

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. Assistant Professor Pimkhuan Kamnerdsupaporn, M.D.
6. Ekkasit Tharavijitkul, M.D.

Gynecologic Pathologists

1. Associate Professor Sumalee Siriaunkgul, M.D.
2. Associate Professor Surapan Khunamornpong, M.D.
3. Associate 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 42 : Diagnostic Procedures and Operations for Cervical Neoplasia.

Procedures & Operations	Number
Colposcopy	474
LEEP	175
Cervical Conization	5
TLH	2
Simple Hysterectomy	29
Extended Hysterectomy &PL	18
Abandoned Radical Hysterectomy & PL	1
Laparoscopic Radical Hysterectomy & PL	5
Radical Hysterectomy & PL	103

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

TABLE 43 : Operations for Ovarian, Corpus and Vulvar Cancer.

Operations	Number
CRS for Ovarian Cancer	112
CRS for Fallopian Tube Cancer	3
CRS for Peritoneal Cancer	4
Surgical Staging for Corpus Cancer	75
Simple hysterectomy for GTT	2
Wide Local Excision & BGND for Vulvar Cancer	3
Radical Hemivulvectomy & BGND for Vulvar Cancer	7
Radical Local Vulvectomy & BGND for Vulvar Cancer	5
Bilateral Groin Node Dissection for Vulvar Cancer	2
Skinning vulvectomy	1

CRS = Cytoreductive Surgery
BGND = Bilateral Groin Node Dissection

PUBLICATIONS & PRESENTATIONS

1997-2008

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

2. **WELL DIFFERENTIATED VILLOGLANDULAR ADENOCARCINOMA OF THE UTERINE CERVIX : A FIRST REPORT OF LYMPH NODE METASTASIS IN TWO OF FOURTEEN CASES.**
   Authors: Siriaunkgul S, Maleemonkol S, Khunamornpong S, Charoeniam V, Isariyodom P, Pantusart A
   Presented at: Fifth Congress of Asia Pacific Association of Societies of Pathologists & Ninth National Congress of Pathology. December 5-7, 1997 Asia Hotel, Bangkok, Thailand

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

4. **THE CLINICAL BENEFIT OF A REPEATED PAPANICOLAOU SMEAR AT THE TIME OF COLPOSCOPY.**
   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
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Presented at: Chiang Mai University Research Academic Day, Chiang Mai University, Thailand, December, 19-20, 2008.

PUBLICATIONS & PRESENTATIONS

2009

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

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Objective: To assess outcome in HIV-positive women undergoing the loop electrosurgical excision procedure (LEEP).

Method: A prospective study was conducted with 789 outpatients undergoing LEEP at Chiang Mai University Hospital between October 2004 and June 2008.

Results: The 70 HIV-positive women (8.9%) were younger (P<0.001) and had a lower parity (P<0.001) than the remaining women. The proportion of women undergoing LEEP for persistent low-grade lesions was higher (8.6% vs 1.9%) and the prevalence of margin involvement was higher (60.0% vs 49.4%) among the HIV-positive women. After adjusting for age, parity, menopausal status, size of excised lesion, and histopathologic result, HIV infection was not significantly associated with LEEP complications (adjusted odds ratio, 0.41; 95% confidence interval, 0.15-1.15).

Conclusion: The higher risk of resection margin involvement in HIV-infected women was not associated with LEEP complications.

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Medical treatment of cervical intraepithelial neoplasia II, III: an update review.

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Cervical intraepithelial neoplasia (CIN) II, III is a preinvasive stage of squamous cell carcinoma of the uterine cervix. The standard treatment for CIN II, III consists of ablation and excision. However, nonsurgical treatment may be necessary for some women to preserve future reproductive potential. This review was conducted to summarize available published data on the efficacy and safety of medical treatment for CIN II, III. Based on existing studies, cyclooxygenase (COX)-2 inhibitors; indole-3-carbinol; and novel immunotherapy agents, including ZYC101a, MVA E2, and HspE7, have been observed as possessing therapeutic activity without any major treatment-related complications. These promising results provide important data for the future direction of clinical research

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Feasibility of the 'see and treat' approach in management of women with 'atypical squamous cell, cannot exclude high-grade squamous intraepithelial lesion' smears.

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AIM: To evaluate the feasibility of the 'see and treat' approach in the management of women with 'atypical squamous cell, cannot exclude high-grade squamous intraepithelial lesion' (ASC-H) on cervical cytology**.**

METHODS: All women with ASC-H, who had undergone the ‘see and treat’ approach between October 2004 and January 2008 at Chiang Mai University Hospital, were reviewed. Similar cohorts, who had undergone conventional management during the same period, were recruited as a comparative group.

RESULTS: One-hundred and eight women with ASC-H smears were available for review. Fifty-eight (53.7%) women had undergone see and treat approach and the remaining 50 had undergone conventional management. There was no significant difference in final histological diagnosis between the conventional and the ‘see and treat’ group (P = 0.32). The time interval from colposcopy to final histological diagnosis in the ‘see and treat’ group was shorter than that in the conventional group, particularly for women with high-grade squamous intraepithelial lesion (HSIL) histology or higher (P = 0.004). Of the 58 women in the ‘see and treat’ group, 14 had no lesions (cervical intraepithelial neoplasia or cancer) on loop electrosurgical excision procedure histology, for an overtreatment rate of 24.1% on the basis of cytology alone. When stratified by colposcopic findings, the overtreatment rate was 61.1% in women who had low-grade lesions or lesser on colposcopy, which was significantly higher than that in women who had high-grade lesions (7.5%, P < 0.001). Multivariate analysis revealed that women with low-grade lesions or lesser on colposcopy had 18.25 times (95% confidence interval (CI) = 3.82-87.23, P < 0.001) greater risk of overtreatment after adjusting for age, parity, menopausal status, contraceptive methods and adequacy of colposcopy.

CONCLUSION: Selective use of the ‘see and treat’ approach in women with ASC-H smears who have high-grade lesions on colposcopy is feasible with an acceptable overtreatment rate

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An audit of standards of the 'see and treat' approach in women with a high-grade squamous intraepithelial lesion on Pap smears

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This study was undertaken to audit the performances of the 'see and treat' approach in women with a high-grade squamous intraepithelial lesion (HSIL) cytology at Chiang Mai University Hospital using selective criteria from the National Health Service Cervical Screening Programme (NHSCSP) 2004 guidelines. Women with a HSIL smear, who had undergone colposcopy and immediate loop electrosurgical excision procedure (LEEP) during June 2006 and September 2008, were reviewed. The standard measurement was determined by the following criteria: (1) the proportion of women treated at the first visit who have evidence of cervical intraepithelial neoplasia (CIN) on histology to be >90%; (2) the primary haemorrhage must be <5%; (3) the proportion of patients admitted as inpatients owing to treatment complication to be <2%. Of 247 women in this study, the histopathological results were as follows: CIN II-III, 188 (76.1%); cancer, 31 (12.6%); adenocarcinoma in situ, 5 (2.0%); CIN I, 5 (2.0%); and no CIN, 18 (7.3%). The prevalence of CIN I or higher was 92.7%. Primary haemorrhage was observed in 13 (5.3%) women. Four (1.6%) women were admitted as inpatients because of LEEP-related complications. In conclusion, the 'see and treat' approach in our institute has acceptable overtreatment and complication rates

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Knowledge, awareness, and attitudes of female sex workers toward HPV infection, cervical cancer, and cervical smears in Thailand

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OBJECTIVE: To determine the knowledge, attitudes, and awareness of female sex workers (FSWs) regarding cervical cancer and its prevention in Thailand.

METHOD: From August through November 2008, 402 consecutive FSWs were recruited for interviews.

RESULTS: The mean knowledge score was 4.9 (maximum possible, 15; range, 0-14). Approximately 60% of the FSWs had knowledge scores less than 5. Low education and a lack of health insurance were significant independent predictors of low knowledge scores (adjusted odds ratios, 3.17 and 1.97, respectively). More than half of the FSWs were unaware of being at higher risk for HPV infection or of the possible consequences of HPV infection. The negative attitude regarding cervical screening was caused by the fear of abnormal results (27.9%), experiencing pain (18.4%), and embarrassment (14.7%).

CONCLUSION: The knowledge and awareness of HPV infection, cervical cancer, and utility of cervical smears is low among FSWs in Thailand. Designing and implementing effective interventions is crucial and merits attention in future research.

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Successfully conservative treatment of large cervical choriocarcinoma with profuse vaginal bleeding

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In the present report, the authors present a case of large cervical choriocarcinoma with life-threatening vaginal bleeding, which was initially misdiagnosed as a cervical cancer The active cervical bleeding was successfully controlled with selective uterine arterial embolization. Remission of cervical choriocarcinoma was accomplished with combination chemotherapy without the need of hysterectomy.

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Hysterectomy in gestational trophoblastic neoplasia: Chiang Mai University Hospital's experience

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Indications and outcomes of hysterectomy in women with gestational trophoblastic neoplasia (GTN) were reviewed at Chiang Mai University Hospital, Chiang Mai, Thailand. From January 1998 through December 2008, 18 women underwent simple transabdominal hysterectomy (TAH). Indications for TAH included suspicious lesions confined to the uterus (5), chemoresistant lesions confined to the uterus (7), hemoperitonium (4), and other diagnoses of gynecologic diseases (2). The final histology reports included choriocarcinoma (9), invasive mole (6), placental site trophoblastic tumor or PSTT (1), uterine fibroid without residual GTN (1), and unknown (1). Two women experienced massive blood loss (4700 ml and 7500 ml, respectively). Postoperatively, only one woman with diagnosis of PSTT did not receive other adjuvant treatment. One woman failed to survive. In conclusion, hysterectomy continues to be an important treatment strategy for selected women with GTN. The common indications include drug-insensitive disease, PSTT, and hemorrhagic complications

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Perioperative complications of an outpatient loop electrosurgical excision procedure: a review of 857 consecutive cases

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This study was conducted to evaluate the incidence and predictor of perioperative complications of the loop electrosurgical excision procedure (LEEP) in an outpatient setting at Chiang Mai University Hospital between October 2004 and December 2008. During this time period, 857 women were reviewed. Mean age was 45.1 years (range, 20-78 years). One-fourth of the women were postmenopausal. Eighty-one (9.5%) women were HIV positive. Perioperative complications were as follows: intraoperative bleeding, 29 (3.4%); early postoperative bleeding, 5 (0.6%); late postoperative bleeding, 42 (4.9%); and infection 37 (4.3%). The size of LEEP specimens was noted to be a significant predictor. Women who had a large LEEP specimen excised (defined as 20 mm or more) were 2.09 (95% Confidence Interval, 1.39-3.14) times more likely to have perioperative complications. In conclusion, outpatient LEEP is safe and has an acceptable perioperative complication rate, although large size carries greater risk.

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Hydronephrosis after radical hysterectomy: a prospective study

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To evaluate the incidence of hydronephrosis after RH in patients with early stage cervical cancer. From July 2006 through March 2007, 77 patients with IA2-IIA cervical cancer who planned to undergo radical hysterectomy and pelvic lymphadenectomy (RHPL) received urinary tract ultrasonography 5 times (one day before surgery and 7 days, 6 weeks, 3 months and 6 months after the operation) from one radiologist. Patients who had hydronephrosis before surgery, suffered intraoperative ureteric injury, or were lost follow-up at 7 days after surgery were excluded from the study. Urinary tract ultrasonography was performed on 77, 55, 52 and 52 patients at each visit. Right hydronephrosis was detected in 16, 7, 5 and 3 patients, and left hydronephrosis in 16, 11, 3 and 1 , at 7 days, 6 weeks, 3 months and 6 months, respectively, after the operation. Hydronephrosis persisted in 8 patients (15%) after 3 months. Two of these had undergone exploratory laparotomy for lysis of ureteral adhesions. One patient who developed hydronephrosis had local recurrence and received further treatment with concurrent chemoradiation therapy. In conclusion, the incidence of persistent hydronephrosis over 3 months after RHPL was 15%, even without intra-operative ureteric injury. However, only a few cases required surgical intervention

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Recurrent rates with cervical intraepithelial neoplasia having a negative surgical margin after the loop electrosurgical excision procedure in Thailand.

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To evaluate the recurrent rate in patients with negative surgical margins after HSIL treatment with LEEP, the medical records of such patients treated between January 2000 and June 2007 were reviewed. All of them subsequently underwent Pap smears every 4-6 months to detect the recurrence of cervical intraepithelial neoplasia. There were 272 patients in the study period. Of these, 9 (3.3%) developed abnormal Pap smears with a median follow up of 12 months. The abnormal smears featured: atypical squamous cells of undetermined significance in 5 cases; atypical squamous cells where high grade squamous cell intraepithelial lesion cannot be excluded in 2 cases; and low grade squamous intraepithelial lesions in the 2 remaining cases. Further investigation with colposcopic directed biopsies were conducted in all who exhibited an abnormal Pap smear and only 3 of them (1.1%) showed cervical dysplasia at biopsy. In conclusion, the patients with HSIL who were treated with LEEP and have negative surgical margins have a very low recurrence rate

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Laparoscopic radical excision of primary round ligament perivascular epithelioid cell tumor mimicking leiomyoma

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Perivascular epithelioid cell tumors (PEComas) are a group of rare mesenchymal tumors including angiomyolipoma, clear cell sugar tumor, lymphangioleiomyomatosis, and other unusual clear cell tumors at various locations. We describe a 45-year-old female patient presenting with a painless mass at the left lower abdomen. Computed tomography showed a circumscribed mass 8 x 7 x 8 cm in the left round ligament of the uterus. The provisional diagnosis was leiomyoma. The patient underwent initial laparoscopic excision. The histological and immunohistochemical diagnosis was malignant PEComa. She subsequently underwent laparoscopic radical excision of the residual left round ligament and surrounding tissue. At 18 months after surgery, she remained well without clinical and radiographic evidence of recurrent disease. According to this report, primary PEComa of the round ligament can mimic leiomyoma. Laparoscopic radical excision might be a feasible and safe alternative treatment of this tumor with a favorable outcome

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Female genital tract tumors and gastrointestinal lesions in the Peutz-Jeghers syndrome

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CASE REPORT: Multiple genital tract neoplasms in a 52-year-old northern Thai woman with PJS are described. The patient presented with abdominal distention. A pelvic ultrasound scan showed a left adnexal mass, diagnosed as mucinous cyst. An ovarian microscopic cystadenoma was diagnosed together with a minimal deviation mucinous adenocarcinoma (MDA) of the uterine cervix and mucinous metaplasia in tubal mucosa and endometrium. Pathological findings warranted a search for evidence of PJS Typical pigmentation at the hard palate and colonoscopic finding of hamartomatous polyps established the diagnosis of PJS. At four-year follow-up, the patient still showed no evidence of tumor recurrence.

CONCLUSION: A case of PJS complicated by multiple and contemporaneous genital tract tumors with rare histological findings is presented. The presented case suggests MDA and mucinous metaplasia warrant a search for PJS.

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

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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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Sexual function after loop electrosurgical excision procedure for cervical dysplasia

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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.

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

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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 is generally favorable. However, re-audit is necessary to ensure that unmet standards of performance are improved and achieved standards are maintained

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The Clinical Outcome of Ovarian Clear Cell Carcinoma Compared to other Epithelial Ovarian Cancers when Treated with Paclitaxel and Carboplatin

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Aim: To evaluate the progression free survival (PFS) of ovarian clear cell carcinoma patients compared to other epithelial histology when treated with surgery following by carboplatin and paclitaxel (PT) regimen.

Materials and Methods: The medical records of epithelial ovarian cancer patients who underwent surgery and received PT regimen treated at Chiang Mai University Hospital between January 2004 and December 2008 were reviewed.

Results: Sixty-seven ovarian clear cell patients were compared to 121 non-clear cell ovarian cancer patients. The mean age of ovarian clear cell patients was younger than non-clear cell group (46.7 vs. 51.2 years old, P=0.001). Patients in ovarian clear cell patients presented in early stage more often than non-clear cell group (76.1% vs. 38.0%, P=0.001). The surgical procedures in both groups were not significant difference. The complete response rate of ovarian clear cell patients and other epithelial histology were 65.7% and 55.3%, respectively (P=0.01). With the mean follow up time 25 months, the 3-year PFS rate of CCC and non-clear cell in early stage were not significant difference (65.4% vs. 64.2%, P=0.45). However, in the advanced stage, the 1-year PFS rate of ovarian clear cell patients was significant difference lower than non clear cell patients (6.3% vs. 49.6%, P=0.001).

Conclusion: Ovarian clear cell patients are commonly found in younger age and present in early stage than non-clear cell ovarian cancer patients. In early stage, clear cell ovarian cancer patients reveal the similar outcome to the other epithelial ovarian histology while the outcome is very poor in the advanced stage.

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Is The Number of Pelvic Nodes Removed Related to The Incidence of Positive Node and Disease Free Survival in Cervical Cancer Patient Treated With Radical Hysterectomy?

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Objective: To examine the relationship of the number of removed pelvic nodes and the incidence of positive node as well as the 5-year disease-free survival (DFS) in cervical cancer patients treated with radical hysterectomy and pelvic lymphadenectomy (RHPL).
Methods: Medical record of 842 cervical cancer patients undergoing RHPL at Chiang Mai university hospital between January 2002 and December 2008 were reviewed. The number of removed nodes were divided into 4 groups as follow; group I= < 20 nodes (N=258), group II = 21-30 nodes (N=344), group III =31-40 nodes (N=171) and group IV = > 41 nodes (N =69). The incidence of positive node and 5-year DFS of patients in each groups were compared.
Result: The incidence of positive pelvic nodes was highest in group I (23.2%), followed by group III (14.6%), group II (14.2%) and group IV (10.1%). The recurrence rate and 5 year DFS were not significantly different among the groups. If patients with and without nodal involvement were considered separately, the 5-year DFS in all groups were also not significantly different.
Conclusion: The number of removed pelvic node is not related to the incidence of positive node and 5-year DFS.

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