MANAGEMENT OF OVARIAN TUMOUR PATHWAYS

Obstetrics & Gynaecology Department
Sarawak General Hospital

Advisor: Dr. Sim Wee Wee
Prepared by: Dr. Chai Ming Cheng
Management of Ovarian Cyst

Pre-Menopause Ovarian Cyst

Simple Cyst

- Symptomatic: Cystectomy
- Asymptomatic: Refer Following Page

Complex Cyst

Tumour Markers
- CA125
- CEA
- LDH, αFP, βhCG (if <40y.o)

Estimate the Risk of Malignancy

International Ovarian Tumour Analysis (IOTA) Ultrasound Rules

- B-rules (Benign)
  - Unilocular
  - Smooth multilocular tumour with largest diameter <10cm
  - Largest solid component <7mm
  - No blood flow
  - Presence of acoustic shadowing

- M-rules (Malignant)
  - Irregular multilocular solid tumour
  - Largest diameter ≥10cm
  - ≥ 4 papillary structures
  - Very Strong blood flow
  - Ascites

- B-Rules/RMI<25
- M-Rules/RMI>250

Staging Laparotomy + TAHBSO (Refer Gynaeoncologist)

Risk of Malignancy Index (RMI)

- RMI score≥250 in detection of malignancy: sensitivity 70%, specificity 90%
- IOTA rules: sensitivity 95%, specificity 91%

To get a CT-TAP if presence of M-Rules
Management of Ovarian Cyst

Pre-Menopause Ovarian Cyst

Simple Cyst/B-rules/RMI<25

Asymptomatic

- < 5cm
  - Review in 2mth, if still <5cm, Discharge

- 5-7cm
  - Review in 2mth then yearly

- >7cm
  - ↑Size
  - Cystectomy

- Simple cyst <5cm is likely to be physiological and almost always resolve within 3 menstrual cycle
- Possibility of salpingoophorectomy should be discussed preoperatively.
- Aspiration of cyst is less effective and associates with high recurrence up to 84%. It is only for highly selected case.
Management of Ovarian Cyst

Post-Menopause Ovarian Cyst

Ultrasound + CA125

Risk of Malignancy Index (U X M X CA 125)
- U: 0 (US score of 0)/ 1 (US score of 1)/ 3 (US score of ≥2)
- M: 1 (Premenopause)/ 3 (Postmenopause)

US Score (1 point for each)
- Bilateral
- Multilocular
- Solid Areas
- Ascites
- Metastasis

<25
Malignancy Risk <3%
Simple Cyst + <5cm + CA 125 < 30

25-250
Malignancy Risk 20%

± CT-TAP
Laparoscopic / Laparotomy Oophorectomy by Gynaecologist

>250
Malignancy Risk 75%

+ CT-TAP
Staging Laparotomy + TAHBSO By Gynaecologist

Discharge if cyst unchanged/resolved + CA125 <30

CA 125 is raised in 80% of ovarian cancer. But 50% of stage 1 ovarian cancer have normal CA 125.
CA 125 >30u/ml in detection of malignancy: sensitivity 81%, specificity 75%.
Ultrasound in detection of malignancy: sensitivity 89%, specificity 73%
Suspecting Epithelial Ovarian Cancer
(US + CT TAP show Complex tumour with high RMI/CA 125)

Early stage (1/2)

Completed family

NO

Laparotomy + USO + comprehensive staging
(only for stage 1A/1C AND well differentiated tumour)

Refer RTU for Adjuvant Chemotherapy (Carboplatin + Paclitaxel)
for stage 1C/2 or poorly differentiated tumour

YES

Laparotomy TAHBSO + comprehensive staging

Refer RTU for Adjuvant Chemotherapy (Carboplatin + Paclitaxel)
for stage 1C/2 or poorly differentiated tumour

Advance Stage (3/4)

Possible for Optimal Cytoreduction

YES

Laparotomy TAHBSO + optimal cytoreductive surgery comprehensive staging

Refer RTU for Neo-Adjuvant Chemotherapy

NO

To get tissue biopsy diagnosis by US/CT-guided biopsy/ laparoscopic biopsy

Interval Cytoreductive surgery + comprehensive

Close Follow-up with US + CA 125

• 3 mthly x 2 yrs
• 6 mthly x 3 yrs
• Yearly
Suspecting Malignant Germ Cell Tumour (Young patient <20y.o, ↑αFP (yolk sac tumour)/βhCG/LDH (dysgerminoma))

- Completed family

NO

- Laparotomy + USO + comprehensive staging + Peritoneal Biopsy
  *(routine biopsy of contralateral normal looking ovary is not recommended unless suspecting dysgerminoma)*

YES

- Laparotomy TAHBSO + comprehensive staging + Peritoneal Biopsy

Refer RTU for Adjuvant Chemotherapy (BEP: Bleomycin/Etoposide/Cisplatin) IF:

- Stage 1C dysgerminoma
- Grade 2/3 immature teratoma
- Yolk sac tumour
- Embryonal tumour
- Stage 2 disease

Close Follow-up with US + αFP/βhCG/LDH

- 3 mthly x 2 yrs
- 6 mthly x 3 yrs
- Yearly

Malignant ovarian germ cell tumour (GCT) are aggressive but curative as majorities are very chemo-sensitive. Commonest is dysgerminoma, 2nd common is yolk sac tumour.

- Malignant GCT grows rapidly, usually diagnosed at early stage as patient are symptomatic (abdominal mass, pain due to capsular distension, haemorrhage or necrosi). 60-70% diagnosed at stage 1-2.

Adapted from Greentop Guidelines Ovarian Cyst in Post-menopausal Women 2010

Greentop Guideline Management of Suspected Ovarian Masses in Pre-menopausal Women 2011