

EP02.34 : Primary high grade serous carcinoma of the fallopian tube: case report and difficulties in ultrasound diagnosis

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Introduction

Primary Fallopian tube carcinoma (PFTC) is a rare tumour of the female genital tract and accounts for 0.1- 1.8 % of all genital malignancies. It poses difficulties in diagnosis, owing to its non-specific symptoms and tumour markers. Hence, it is very often a diagnosis made intra-operatively or on histopathology.

Case report

We are presenting a 67-year-old post menopausal woman who was gravida 1, para 1. Medical history included hyperparathyroidism, papillary thyroid carcinoma, osteoporosis and hypertension. She underwent a medical examination in India which reported a 3cm complex cyst. Patient was well with no abdominal pain, CA125 was 31.2. She had a repeat scan in Singapore. Ultrasound revealed a 3.1x 2.4 x 2.7 cm echogenic mass and a folded tubular cystic structure of 4.7 x 1.9 x 3.7 cm in the left adnexal region. IOTA score was 2.2% as sonographer noted shadowing from the mass. Ultrasound examination was repeated three months later. Results noted a tortuous multi-septated tubular cystic structure of 4.5x 2.2 x 3.7 cm in the left adnexal region which has features of hydrosalpinx. It enveloped an echogenic mass of 2.9x 2.9 x 2.7 cm. Colour Doppler detected strong intralésional flow, IOTA scoring was 49.5%. CT chest, abdomen and pelvis was performed. Findings noted a 5.0 x 4.5 x 3.0 cm solid-cystic mass in left adnexal region, likely primary ovarian neoplasm. Patient underwent total hysterectomy, bilateral salpingo-oophorectomy and omentectomy.

Intraoperative findings: 4 cm tubal mass; Frozen section noted serous papillary carcinoma.

Histopathology:

1. High grade serous carcinoma of Left Fallopian Tube, size 4cm, associated with serous tubal intraepithelial carcinoma (STIC) in Fallopian tube.
2. Right tube, ovaries and uterus negative for invasive carcinoma.

Case report cont'd

3. Endometriosis in left ovary and right Fallopian tube.
4. Adenomyosis and uterine leiomyomata.
5. Rectal nodule : Endometriosis, negative for malignancy.
6. Right and left pelvic lymph nodes; negative for malignancy
7. Peritoneal washing; cytology; Few cluster of malignant cells seen.
8. Left fimbriae: Carcinoma; favour serous papillary

Discussion and Conclusion

In the index case, the mass has features of the Fallopian tube with incomplete septate. The IOTA scoring on the first scan was low as sonographer detected acoustic shadowing from a small area within the solid area of left adnexal mass.

On the second scan, sonographer did not consider the irregular hypoechoic band as shadowing, hence arriving at a high IOTA score.

While a solid area or papillary projection inside a Fallopian tube mass may raise concern for primary Fallopian tube carcinoma, it is not a confirmative feature. Many non-cancerous conditions can also create solid-looking components in a dilated tube. Tubo-ovarian abscess, ectopic pregnancy, haematosalpinx and paratubal or benign epithelial polyps may also contain some solid components.

Therefore, primary fallopian tube carcinoma can closely mimic benign or ovarian pathology on ultrasound. This case demonstrates the importance of serial imaging, when solid components are detected. Doppler assessment and careful evaluation of IOTA features would improve accuracy. The tumor presented as a complex mass, interpretation by different sonographers do not concur. In the first report there was a doubt as to the presence of a calcification and shadowing, a very important feature in IOTA scoring. Small difference in ultrasound significantly influence risk assessment and subsequent clinical management.

