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An Interesting Right Iliac Fossa Mass

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ABSTRACT

Mature teratomas (benign cystic teratomas or dermoid cysts) are among the most common ovarian germ cell tumors. However, teratomas of the omentum are extremely rare. Till date, only 29 cases of Teratoma of the Greater Omentum (TGO) have been reported worldwide. We hereby report an interesting case of a right iliac fossa mass which turned out to be a Teratoma of the Greater Omentum.

Keywords: Teratoma, Greater Omentum, Right Iliac Fossa Mass, Dermoid cyst

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Case Report

A 40 year old female with a previous history of appendectomy done 2 years back, came with complaints of pain in right iliac fossa which was insidious in onset, dull aching, non-radiating, intermittent, non-progressive and not related to food intake for 1 month duration and also with a vague fullness over the same region for 15 days. She had no associated symptoms of fever / vomiting / difficulty in micturition / hematuria / hematemesis / melena / trauma / jaundice / loss of weight / appetite / similar episodes in the past. Her menstrual history was normal. She was happily married and a mother of two (P2 L2 A0). She had undergone sterilization 15 years back.

Her general examination and vital signs were normal. Abdominal examination showed an irregular, tender, firm, immobile 6x4cm RIF mass with a well felt lower border. There was no ascites clinically. Per vaginal and per rectal examinations were normal. Both breasts, Cardiovascular, Respiratory & Central nervous systems were examined and found to be normal.

Her basic investigations (Hemogram, Renal function test, Liver function test, Chest X-ray, Electrocardiogram, Echo cardiogram) were normal.

Ultrasound & CECT abdomen showed an ill-defined mixed echogenic solid cum cystic lesion in the right iliac fossa. The right ovary could not be visualized. The uterus, bladder, kidneys and left ovary were found to be normal. There was no free fluid. Liver, spleen & pancreas were found to be normal.

Colonoscopy and upper GI scopy were normal. Tumor markers such as CA 125, CEA and AFP were found to be within normal range.

A provisional diagnosis of Ovarian Tumor/ Small Bowel Mesentery Tumor was made and the patient was posted for an elective laparotomy after obtaining consent for hysterectomy and B/L salphingo-oopherectomy.

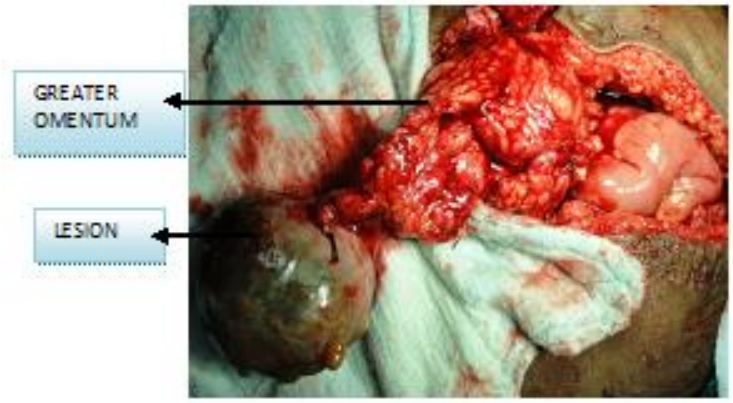

Figure 1: The lesion seen attached to the greater omentum

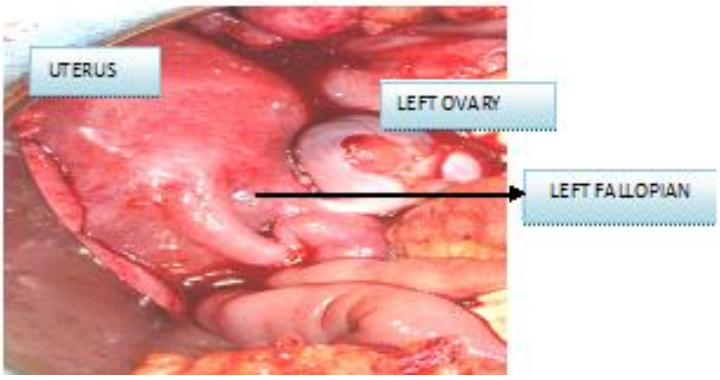

Figure 2: Intraoperative picture showing thr uterus with left tube and ovary

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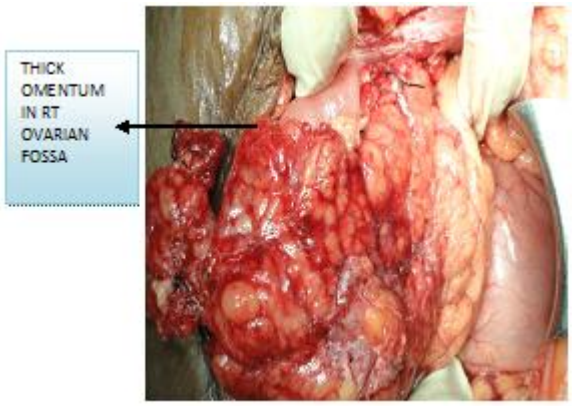

Figure 3: Thick adherent omentum seen the right illiac fossa

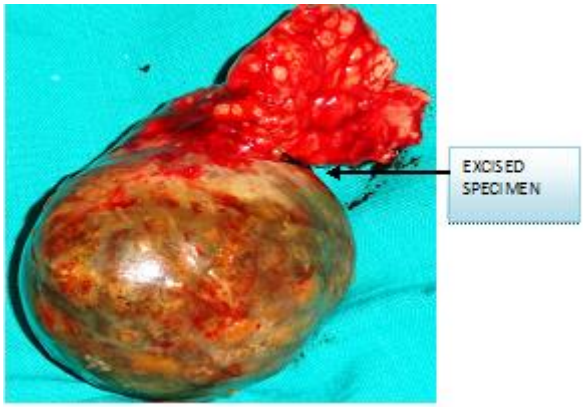

Figure 4: The excised specimen

Midline laparotomy showed a 8x6cm bluish grey solid cum cystic lesion in the right iliac fossa attached to the greater omentum without any adhesions to bowel/viscera. Right ovary and appendix could not be identified. The left ovary, uterus, liver, stomach, gall-bladder, small and large bowel were found to be normal. Excision of the lesion with attached omentum (partial omentectomy) was done.

Histopathology report came as Benign Mature Cystic Teratoma (Dermoid Cyst Ovary). The post-operative period was un-eventful and the patient was discharged on 10th post operative day. She is now on regular follow up.

DISCUSSION

Apart from ovary being the commonest site [1], the other sites of occurrence for teratoma in decreasing order of frequency are the sacrococcygeal region, neck, mediastinum, abdominal and oral cavities respectively [2]. Only rarely have cystic teratomas been reported in the greater omentum [3]. It is generally accepted that teratomas arise from germ cells that originate in the mature gonads. During early fetal development, germ cells from the yolk sac migrate along the hindgut (route of the mesentery) toward the genital ridge (primitive gonad). These totipotential cells may give rise to a variety of tissues originating from the 3 primitive embryonic layers. Migration along the hindgut explains how teratomas may develop in multiple locations.

The first omental dermoid cyst was described by Lebert in 1734. Teratomas of the greater omentum have been reported more frequently in women [4]. They are typically found in women of reproductive age, but may also appear in young girls and in older women [5, 6].

Common hypotheses of occurrence are:

- Primary teratomas of the omentum may originate from displaced germ cells.

- Teratomas may develop in a supernumerary ovary of the omentum.
- Teratomas may result from auto-amputation of an ovarian dermoid cyst with secondary implantation into the greater omentum [7].

For the first theory, no pathological evidence for omental ectopic germ cells has ever been found. The weakness of the second hypothesis is the fact that no case of a normally structured ovary of the greater omentum has ever been reported. The third hypothesis seems to be the most plausible according to most cases, because of the association between mature teratoma of the greater omentum and pathological evidence of ovarian stroma, coexistent unilateral teratoma in the ovary or absent ovary. Today, all 3 hypotheses should be considered.

They are classified histologically into MATURE (solid, cystic) and IMMATURE teratomas [8]. The prognosis depends on the degree of maturation along the normal lines of differentiation. It is difficult to establish a diagnosis preoperatively. The definitive diagnostic finding is the presence of intra-tumoral fat and calcification. CT is the diagnostic modality of choice.

Differential diagnosis include Duplication cysts, Cystic mesothelioma, Cystic lymphangioma and Liposarcoma. Teratomas of the greater omentum are usually benign lesions, but malignant transformation has also been described. Incidence of malignancy in benign teratoma is 1-2% [9]. It usually occurs in postmenopausal women and it is commonly of squamous cell carcinoma type.

Surgery for benign mature teratoma is unilateral ovariectomy and follow up. Pathological examination must differentiate between mature and immature teratoma [10]. Immature teratomas are potentially malignant, so the patient may require Chemotherapy (BEP regimen) and Radiotherapy [11].

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