**Foetiform teratoma : A Rare Variant of Mature Cystic Teratoma**

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**Abstract**

Foetiform teratoma is a rare form of mature cystic teratoma. A 23 year old unmarried female presented in emergency with acute abdomen. On ultrasonography bilateral cystic ovarian masses were seen. An exploratory laparotomy with bilateral cystectomies was performed. Based on the gross and microscopic finding, the left ovarian cyst was diagnosed as Foetiform teratoma. This has to be distinguished from Foetus in foetu. Here we present a rare case of Foetiform teratoma and discuss the differentiating features from Foetus in foetu.

**Introduction**

Foetiform teratoma is a term that has been given to a rare variant of mature cystic teratoma that is highly developed and organised; resembling a malformed foetus. This is a rare entity presenting most often as ovarian mass in women of reproductive age group.

**Case Report**

A 23 year old unmarried lady presented with pain in abdomen. Her past medical and surgical history was insignificant. On examination there was abdominal tenderness. USG Abdomen revealed bilateral ovarian cysts, right measuring 6 x 5 x 4 cm and left measuring 7 x 6 x 5 cm respectively. CA-125 was 35 IU/ml. Patient underwent bilateral ovarian cystectomy.

We received two cystic masses. Right measured 6 x 5 x 4 cm and left sided cyst measured 7 x 6 x 5 cm, externally smooth with congested blood vessels. On cut opening right ovarian cyst was unilocular thin walled and filled with sebum and tufts of hairs, whereas left ovarian cyst revealed a structure macroscopically resembling an ill formed foetus with globular mass like elevation resembling head and two small limb buds, each measuring 0.6 cm (Fig. 1). Cut section through the mass showed fatty yellowish areas with bone, cartilage and tooth. X-ray of specimen showed a mass resembling malformed foetus with vertebral body (Fig. 2).

Microscopically right sided ovarian cyst showed features of dermoid cyst. Multiple sections through left sided ovarian mass showed tumour composed of disorganised mature tissue of all the three germ layers viz. skin, adipose tissue, cartilage, bone, teeth, gastrointestinal epithelium, respiratory epithelium, thyroid, choroidal tissue, mature glial tissue. Thus based on clinical history, gross, radiological findings and microscopic examination, we diagnosed this as Foetiform teratoma.

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Discussion

Mature cystic teratoma are common benign ovarian tumours that occur most commonly in women of reproductive age group composed of disorganised mature tissues of one or more of the embryonic germ layers: ectoderm, mesoderm and endoderm.¹

A foetiform teratoma is a rare variant of mature cystic teratoma that shows some degree of organoid differentiation and appears grossly to be shaped like a foetus. Less than 30 cases have been reported in the English literature.¹,² Age distribution of the patients ranged from 2.5 yrs to 65 yrs.¹,²,³ However most presented in the third or fourth decade of life. This entity needs to be distinguished from Foetus in foetu (FIF). Most reported cases of the FIF have been discovered in infancy as an abdominal mass and no cases have been reported within an ovary. The most common location is retro peritoneum. In contrast, foetiform teratoma are most commonly found in women of reproductive age and discovered as ovarian masses. Other common sites being testis and mediastinum, less commonly midline region, sacrococcygeal region and GIT especially caecum is involved.² It has been proposed that foetiform teratoma and FIF can be distinguished based on zygosity. Most ovarian teratomas are homozygous at loci, where the normal tissue demonstrates heterozygosity, but FIF is genetically identical to its host.¹²,³,⁴ In our case cytogenetic study was not carried out.

Many previous reports have suggested that FIF and foetiform teratoma can be differentiated based on presence of axial skeleton and spine, but according to recent reports organogenesis or axial skeleton is used as diagnostic criteria for diagnosing FIF.⁵ A spine can also be seen in a foetiform teratoma. In our case though axial skeleton was seen but organized organogenesis with respect to spine was not seen and hence the diagnosis of foetiform teratoma was made.

Interesting pathological and radiological findings and rarity of lesion, prompted as to report this case.
PRIMARY PREVENTION OF CARDIOVASCULAR DISEASE
Severe hypertension and familial hypercholesterolaemia are single risk factors for cardiovascular disease, but blood pressure and cholesterol are measured on a continuous scale and risk of cardiovascular disease is multifactorial.
Most events occur in people with modest values of cholesterol (or low density lipoprotein-cholesterol) that overlap with those seen in people without cardiovascular disease and Hingorani and Hemingway debate whether to target high risk people or screen whole populations.
Extended screening to everyone aged 40-75 years for cardiovascular disease and metabolic factors to be done. Screening may do no physical harm but some people find it emotionally distressing.
Perhaps half of asymptomatic men would be eligible for statins in their last 25 years of life, which raises concerns about “medicalising” such large numbers of people.

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References
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