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Fetus en Fetu- Two Case Reports with Review of Literature

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ABSTRACT

Fetus in fetu (FIF) is a rare congenital anomaly. Fetu en fetu term was coined by Willis. It is secondary to the abnormal embryogenesis in a diamniotic, monochorionic pregnancy. It is a rare pathological condition and fewer than 100 cases have been reported in the literature. The anomaly was first defined in the early nineteenth century by Meckel. This anomaly may remain asymptomatic and may present at a later age.

KEYWORDS

Fetus en fetu; Teratoma

CASE REPORT

Case 1

A 5-month-old male child presented to us with abdominal distension. The mother noticed it one month back. He had a history of intermittent vomiting. On clinical examination there was firm to soft mass was presented in Rt. Hypochondrium with involvement of epigastric and Rt. lumbar region. Haemogram, kidney function test, liver function tests were normal. Abdominal ultrasonography revealed a large, hyperechoic, heterogenous intra-abdominal mass that appeared to contain areas of calcification. CT scans showed a large retroperitoneal mass mainly on the right side with calcification with limb like projection. Keeping in view of fetu en fetu or teratoma exploratory laparotomy was done. There was a large mass within the sac. Limbs buds were well appreciated. There was one vascular pedicle that was ligated before complete excision. Postoperative patient recovered well without any complications. Histopatholgy confirms the diagnosis of a fetus en fetu.

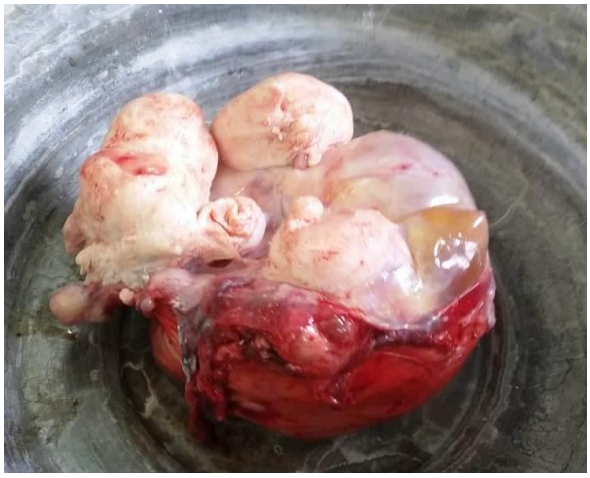

Figure 1: Multilobed mass with well developed limbs.

Case 2

2 month old child presented with abdominal distension. On clinical examination there was firm to soft mass in Rt upper part of the abdomen. The tumor markers of the patient (α-FP, CEA, β-HCG), blood urea & creatinine

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were normal. Ultrasound and CT scan showed a multilobed heterogeneous mass lesion with a size of 8 cm × 6 cm with calcification in the retroperitoneal area.

A Rt upper transverse incision was taken. There was the largest mass in within the sac. The CBD, Portal vein and hepatic artery, the pancreas was lifted up by mass. The whole mass was excised after careful dissection and ligation of one major vessels supplying to mass. There was well formed vertebral bodies in the fetus. Mass sent for histopathological examination confirmed fetus en fetu. The postoperative period of the patient was free of complications.

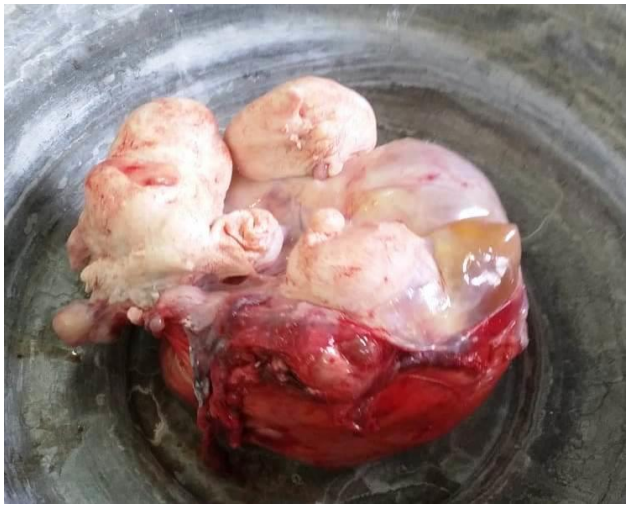

Figure 2: Mass with definitive vertebral bodies.

DISCUSSION

Fetus in fetu was first described by Meckel in the late 18th century [1]. The term fetus en fetu was coined by Willis [2]. In this parasitic twin was found inside the body of another fetus usually in the abdominal cavity and is due to anomalous embryogenesis in a diamniotic monochorionic pregnancy. This pathology is rare and the incidence is 1 per 500000 births [3], with fewer than 100 reported cases worldwide. The majority of cases occur within one year of age. Commonest presentation is abdominal mass and within retroperitoneum. Uncommon sites include sacroccygeal region, oral cavity and scrotum. Most common differential diagnosis is teratoma. An important feature that has been used to distinguish between a fetus in fetu and teratoma is the presence of a vertebral column.

Identification of the vertebral column indicates that fetal development of the included twin must have advanced at least to the primitive streak stage to develop a notochord, which is the precursor of the vertebral column [2]. Most accepted and widely used criteria for diagnosis of fetus en fetu is about Lord's criteria (1954).

According to him the presence of a vertebral column and extremities and organs located in appropriate places around it as the basic diagnostic for FIF. These criteria are still, to a wide extent, valid today [4,5]. However, there are those who The fetus is always anencephalic. The vertebral column and the limbs are present in the fetus in fetu in almost all cases [2].
Malignant degeneration associated with fetus in fetu is extremely rare.

Although the fetus in fetu is a rare condition, correct diagnosis using imaging can be made before surgery. CT scan is a very important tool for making the diagnosis of a fetus en fetu. Complete surgical excision is curative.

CONCLUSION

Fetus in fetu is a rare entity that typically presents in infancy and early childhood. It must be differentiated from a teratoma because of the teratoma's malignant potential. Presence of vertebral column is the most important feature for making a diagnosis of a fetus en fetu. CT Scan is very helpful for making a preoperative diagnosis [6]. The treatment of fetus in fetu is complete surgical excision.

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