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FETUS IN FETU:A CASE REPORT

Radiodiagnosis

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ABSTRACT

Fetus in fetu is rare congenital anomaly in which parasitic one fetus twin develop into body of normal co-twin fetus.Most common location being retroperitoneum area, however can be found in other location as well.This case report is about presence of one of the twins in the retroperitoneum of other.

KEYWORDS

INTRODUCTION

Fetus in fetu is an extremely rare entity in which malformed fetus is found in abdomen of its twin.This entity is differentiated from teratoma by its embryological origin,its unusual location in the retroperitoneal space and the vertrebral organization with limb buds and well developed organ systems.

CASE HISTORY:

A 10 year old girl presented with the complain of abdominal distension since birth in surgery opd in our hospital.Upon physical examination,a mass measuring approx. (17x13)cm was detected covering almost entire abdomen.

The Computerized abdominal tomography was done later and it shows large well defined peripherally enhancing cystic density lesion in retroperitoneum occupying epigastric,umbilical,bilateral hypochondriac and bilateral region measuring (18x12x14)cm in size.[Figure1]

During operation a mass with (17x15)cm was found at the retroperitoneal area.Upon incision of the capusule,surgeons found mass lesion with bony parts like structures may represent spine and long bones.The mass was removed was totally removed.

Thus postoperative specimen resembles with our imaging findings.[figure2]

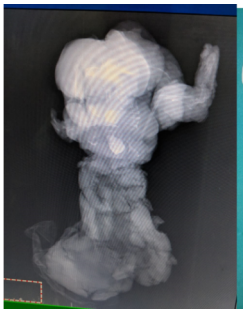

Figure 1

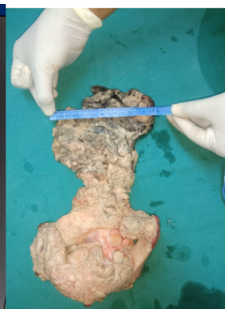

Figure2

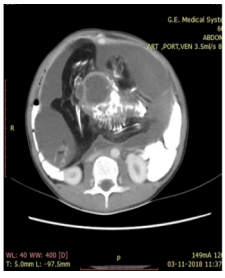

Figure 4

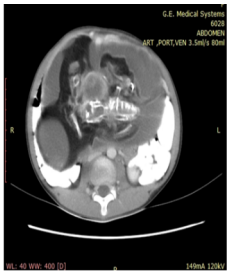

Figure 5

DISCUSSION:

Fetus in fetu malformation has been defined as the existence of a parasitic, monozygotic, diamniotic fetus in the body of its twin.[1]The common presentation of fetus in fetu is mass most commonly in the abdomen, almost 80% in the retroperitoneum.[2] The fetus in fetu produces symptoms due to mass effect leading to distention, difficulty in feeding, vomiting, jaundice, urinary retention.

Thakral et al.[3] reported equal male and female prevalence but Patankar et al.[4] and Federici et al.[5] noted a 2:1 male predominance. Imaging plays a very important role in the diagnosis of FIF. Abdominal radiographs are sufficient when vertebral columns and bony structures in the form of limb bones are identified. Nocera et al. [6] was the first to describe CT findings in FIF. CT images (figure 3 & 4) in FIF show a mass that consists of a round or tubular collection of fat surrounding a central bony structure. Moreover,, the identification of vertebrae or long bones is essential for a tentative diagnosis of FIF. CT also helps in establishing the exact relationship between FIF and the surrounding structures and their displacement due to mass effect.

There is a controversy whether FIF is a separate entity or a well-organized teratoma. A teratoma is a neoplasm containing multiple tissues from all 3 germ layers, which has a malignant potential. Hence, FIF is described by some authors as a highly organized teratoma. Some authors [7] think that FIF consists of a spectrum of malformations that result from abnormal embryogenesis in a monochorionic pregnancy, which includes conjoined twins at one end to fetiform teratomas at the other end, with parasitic twins and embryonic vestigial fetal inclusions in between.

However, a lot of other authors feel that FIF is a distinct entity, separate from the teratoma, for several reasons. FIF occurs mostly in the upper abdomen, while teratoma occurs in the lower abdomen and pelvis. The presence of vertebral bodies indicates that fetal development advanced to the stage of primitive notochord stage (the notochord is a precursor of vertebral body) [8] However, it is important to differentiate between FIF and teratoma because of a slight risk of malignancy associated with retroperitoneal teratomas. In contrast, FIF is almost always benign with only one reported case of malignancy [9]. Clinically, FIF can be differentiated from a teratoma by the presence of vertebrae and limbs.

Conclusion: FIF is rare pediattric condition which commonly located in retroperitoneum.However,it can be located elsewhere too.The differential diagnosis includes teratoma,meconium peritonitis and abdominal ectopic pregnancy.Imaging plays an important role to differentiate from these condition.As it is benign entity and malignant transformation is rare,early diagnosis followed by resection can cure patient.Follow up may requrine in some cases.

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