Ped Urol Case Rep 2014;1(6):24-27 DOI:10.14534/PUCR.201468063

PUCR
Ped Urol Case Rep

PEDIATRIC UROLOGY CASE REPORTS

ISSN:2148–2969

Journal homepage: http://www.pediatricurologycasereports.com

Fetus in fetu: A very rare anomaly

Sanjay Choudhuri, Pramod Mohanty, Datteswar Hota

Abstract "Fetus in fetu" is a condition seen rarely in the literature, less than 200 cases reported till now. It is a calcified mass or an encapsulated pendunculated tumor thought to be due to unequal division of totipotent cells of a blastocyst, resulting in a small cellular mass in a more mature embryo thus forming a monozygotic, diamniotic twin pregnancy.

Key Words Fetus in fetu; calcified mass; retroperitoneum; reimplantation.

From the Department of Urology SCB Medical College Cuttack, India

Corresponding Author: *Pramod Mohanty, M.D., Assist. Prof., SCB Medical College, Dept. of Urology & Renal Transplantation, Cuttack, Odisha, India.*

E mail: dr.monhanty@gmail.com

Accepted for publication 11 October 2014

INTRODUCTION

Fetus in Fetu is a condition not been encountered regularly in the clinical practice in the medical science, so as the cases reported in the literature are sparse. This condition first described and termed by Meckel in the eighteenth century. Less than 200 cases have been reported worldwide [1-3]. It is a fetiform calcified mass thought to arise from unequal division of the totipotent cell at blastocyst stage of embryogenesis give rise to a cellular mass parasitic with in a mature embryo in a twin pregnancy [1,2,4]. Generally it is diagnosed in the newborn with a mass abdomen mostly in the retro-peritoneum but can also be diagnosed in utero or remain asymptomatic till adulthood and detected incidentally. Literatures have reported FIF in cases of quadruplet pregnancies and also in sites like cervical

and orocervical, sacro-coccygeal, intracranial, thoracic area [5,6]. We present a very rare case of Fetus in Fetu in a child of 2 years 5-month.

CASE REPORT

A child of 2 years 5 months presented with a painless left upper abdominal lump since birth which was non progressive in nature, without any signs of pulmonary or renal compromise. On examination, there was a large, oval, firm palpable mass of size 12x7cm, occupying left hypochondrium, epigastrium, umbilical, and part of infra umbilical area, left lumbar region up to the iliac crest. It was non tender and not trans-illuminated. Rectal examinations did not reveal any abnormality. Chest X-ray was normal. Plain X-ray abdomen revealed bony densities consistent with a well formed fetal spine, long bones. Ultrasonography showed a large, heteroechoic mass measuring 12x7 cm with hyperechoic areas suggestive of calcification. Computerized Tomography (CT) scan revealed a soft tissue heterogeneous mass with in-between bony density. A provisional diagnosis of fetus in fetu vis a vis retroperitoneal teratoma was made.

Operative findings

Abdomen was explored by a left subcostal incision. The large variegated mass lying in the retro peritoneum was removed in-toto. On opening the cyst wall, a malformed fetus was found inside. The miniature fetus had well-defined feet, rudimentary upper limbs, skin, hair, vertebral column and other undifferentiated tissues without any obvious cranium. The weight of the mass was 1.1 kilogram. One month later the baby was in good health weighing 2.7 kilograms. One year later found to have normal developmental miles stones, good health weighing 5.7 kilograms.

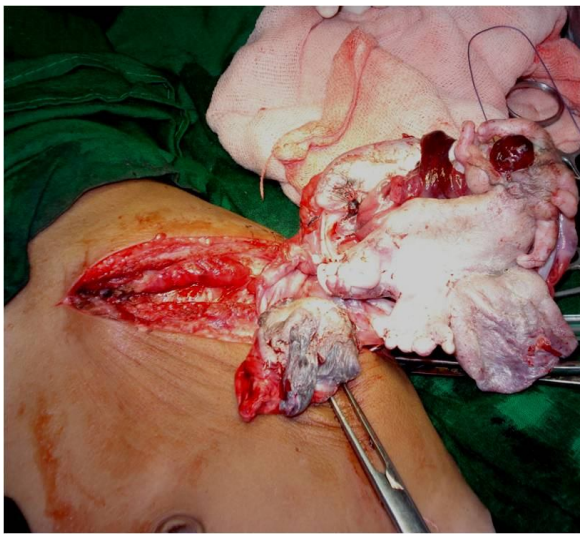

Fig. 1. Surgical image shows malformed fetus.

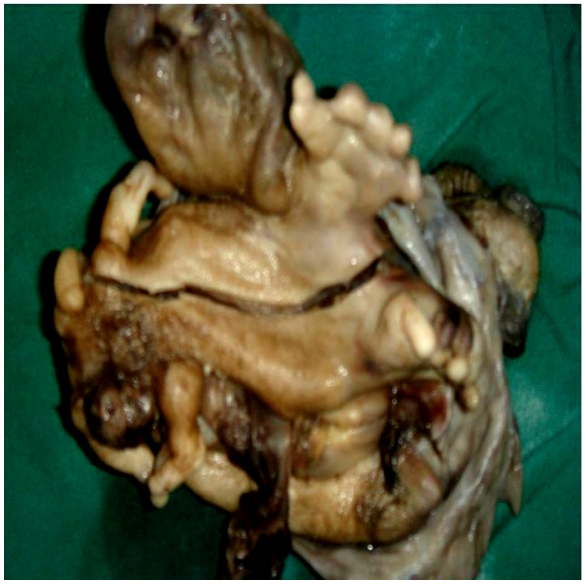

Fig. 2. Gross specimen of fetus with well-developed upper and lower limbs.

DISCUSSION

Fetus in fetu is an uncommon clinical condition to encounter roughly accounting one in 500,000 deliveries. Majority of the reported cases in the literature are in the neonates and children accounting less than 10 cases in adults. It presents predominantly in the abdomen, however rare cases arising from the cervical and oro-cervical, sacro-coccygeal, intracranial, thorax sites have been reported in the literature. The origin is thought to arise from unequal division of the totipotent cells in the blastocyst stage in twin or multiple pregnancies [1-6].

Differential diagnosis of Fetus in Fetu is retroperitoneal masses, such as neuroblastoma, wilms tumor, hydronephrosis and teratomas. The diagnosis of Fetus in Fetu can be made with finding of vertebral column inside the fetus with background of twin pregnancies, postnatal presentation of mass abdomen or with symptoms of compression if this differential diagnosis is thought of before hand. Although mostly patients presents with a mass abdominal or features of organ compression, literature reports presentation with spontaneous rupture of the mass and death of the fetus. The treatment of choice of FIF is excision of the mass in total to get rid of the compression effects on other organs, as well as prevent complications like infarction, infection or spontaneous hemorrhage. Excision of the mass adds further to the diagnosis and the nature (benign/malignant) of the mass [7-9].

CONFLICT OF INTEREST

None declared.

REFERENCES

1. Eng HL, Chuang JH, Lee TY, Chen WJ. Fetus in fetu: a case report and review of the literature. J Pediatr Surg. 1989;24(3):296–9.
2. Gangopadhyay AN, Srivastava A, Srivastava P, Gupta DK, Sharma SP, Kumar V. Twin fetus in fetu in a child: a case report and review of the literature. J Med Case Reports. 2010; 25(4):96.
3. Arlikar JD, Mane SB, Dhende NP, Sanghavi Y, Valand AG, Butale PR. Fetus in fetu: two case reports and review of literature. Pediatr Surg Int. 2009;25(3):289–92.
4. George V, Khanna M, Dutta T. Fetus in fetu. J Pediatr Surg. 1983;18(3): 288-9.
5. Aoki K, Matsumoto Y, Hamazaki M, Sano M, Fukumoto K, Fukaya T, et al. MRI reveals fetus in fetu in the mediastinum. Pediatr Radiol. 2004; 34(12):1017–19.
6. Hoeffel CC, Nguyen KQ, Phan HT, Truong NH, Nguyen TS, Tran TT, Fornes P. Fetus in fetu: a case report and literature review. Pediatrics. 2000; 105(6):1335–44.
7. Gurses N, Gurses N, Bernay F. Twin fetuses in fetu & a review of literature. Z Kinderchir. 1990;45(5):319-22.
8. Luzzatto C, Talenti E, Tregnahi A, Fabris S, Scapinello A, Guglielmi M. Double Fetus in fetu: diagnostic imaging. Paediatr Radiol. 1994;24(8):602-3.
9. Grant P, Pearn JH. Fetus in foetu, Med J. Aust. 1969;1(20):1016 -20.