National Journal of Medical and Allied Sciences

[ISSN Print: 2293-9192, online: 2319 – 6335 |Case report |Open Access]

Website:-www.njmsonline.org

FETUS- IN- FETU PRESENTING AS INTRAHEPATIC TERATOMA IN AN ADULT MALE

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Abstract

Fetus in fetu is a rare condition that has been defined as the presence of one of the twins in the the body of another. It is most frequently located in retroperitoneal area; however, it has been reported in the other location as well. We are reporting a case of 30 years adult male who presented with pain abdomen and vomiting. All the routine hematological and radiological investigations were done, patient underwent laparotomy and was diagnosed as intrahepatic teratoma. Intra hepatic fetus in fetu is extremely rare and has not been reported in adult male previously.

Key words: Fetus in fetu, intrahepatic teratoma

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Introduction:

Fetus in fetu is a pathological condition resulting from abnormal embryogenesis in a diamniotic, monochrion (1). One of the most striking features of this condition is the magnitude of microscopic, macroscopic and imaging appearance of the fetus in fetu, the diversity of opinion on the relationship between this entity and teratomas, and variety of anatomical location in which abnormality occurs. Intra hepatic presentation was earlier reported in 1992 as pedunclated exophyitic fetus in fetu related to inferior surface of the right lobe of liver (2).

Case report:

A male patient aged 30 years was admitted in the department of surgery, Indira Gandhi Institute of Medical Sciences, Patna with complain of pain abdomen followed with mild fever, cough and vomiting since three months. Pain radiated to right shoulder followed by bilious vomiting and relief from pain. There was no history of fever with chill, coagulation disorder and patient claimed to be non alcoholic. There was not any significant family history found. On per abdominal examination there was no lump felt but there was tenderness in right

hypochondrium. Alpha Fetoprotein was within normal limits. An ultrasound examination revealed an echogenic well defined lump of size 6.3 × 8.7 cm with hypoechoic brim and few calcifications adjacent to gall bladder fossa posterior to inferior venacava. A contrast enhanced tomography (Fig.1) showed, a large 8 cm × 6 cm thick walled cavitary mass seen in right sub-hepatic area compressing the superior pole of right kidney. The mass contained solid calcified component and extensive air pocket. The wall seemed contigious with liver parenchyma. No other focal lesion was seen in liver. Other routine hematological and radiological investigations were done. Before undergoing surgical procedure a written informed consent was obtained from the patient. The mass was excised under general anesthesia and was diagnosed as partially healed hydatid disease complicated by gas forming organism (Fig. 2). Histopathology film showed hair admixed with fibrotic tissue, cartilage and vertebral column (Fig. 3). The post-operative recovery period was uneventful and on subsequent follow up, ultrasound whole abdomen was done after one month and was normal.

Discussion:

Fetus in fetu and fetiform teratoma are rare forms of mature teratoma that include one or more components resembling a malformed fetus. Both forms may contain or appear to contain complex organ system, even major body parts such as torso and limbs. Fetus in fetu differ from fetiform teratoma in having spine and bilateral symmetry (3). Fetus in fetu complex composes of a fibrous membrane (equivalent to chorioamnionic complex) that contains some fluid and fetus suspended by a chord or pedical. (3,4). The presence of vertebral column is an important diagnostic criterion which suggests the development of notochord which in term is an advanced primitive streak (5). A non-calcified vertebral column invisible on radiograph or on CT scan or its total absence does not exclude diagnosis of fetus in fetu (6). It's a developmental abnormality in which a mass of tissue resembling a fetus forms inside the body. There are two theories of origin. One theory is that the mass begins as a normal fetus but becomes enveloped inside its twins. The other theory is that the mass is highly developed teratoma (7). Other depreciating feature of fetus in fetu includes normal level of Alpha Fetoprotein in fetus in fetu. A diagnostic modality is using an informative genetic marker, for uni-parental isodisomy of Chromosome 14 and 15. If it shows no genetic difference between host and fetiform mass, then it is diagnostic of fetus in fetu (8). Fetus in fetu presents as a lump in the abdomen (70%) and the retroperitoneal space in the commonest. Other sites include sacro-coccygeal region, intra cranial, thorax, pelvis and scrotum (9). It derives its blood supply from multiple small posteriorly situated vessels rich vascular flaxes around cyst wall. However vascular pedicle is rarely of the in large growing mass with delayed presentation. Surgical excision is the treatment of choice in both fetiform teratoma and fetus in fetu.

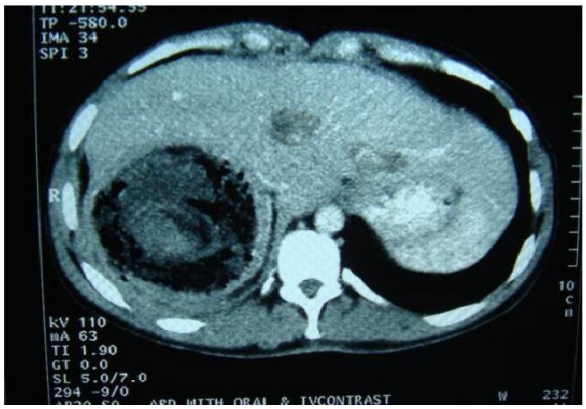

Fig 1: CT scan suggestive of partially healed calcified lesion in liver

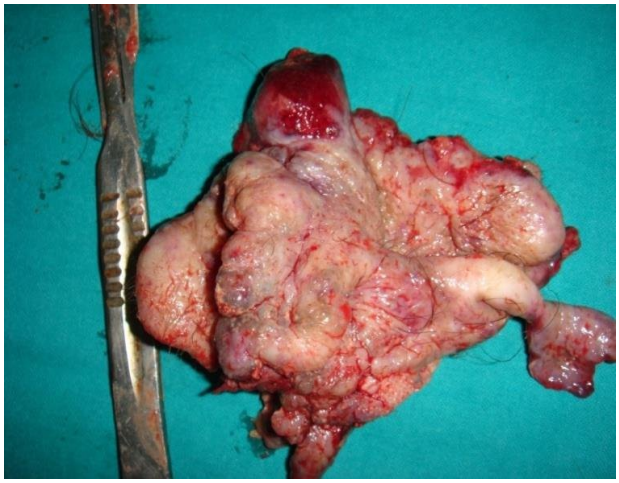

Fig 2: Excised mass showing strands of hair and body part

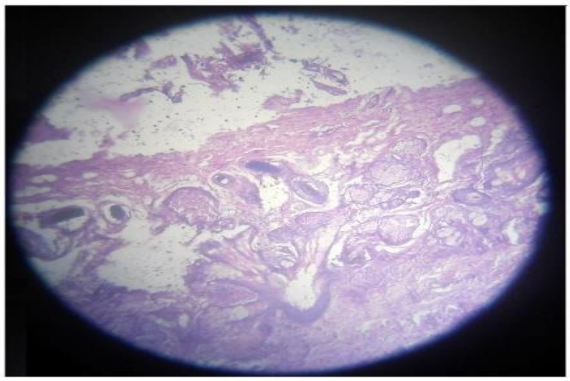

Fig 3: Histopathological view: Hair admixed with fibrotic tissue, cartilage and vertebral column

Conclusion:

Intra hepatic fetus in fetu is extremely rare and has not been reported in adult male previously. The diagnosis in this case was established by surgical exploration and macroscopic finding characteristic of sebaceous gland, hair follicles cartilage and vertebral column and bony fragments.

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Conflicts of Interest: None Funding: None

Citation: Ranjan A, Prasad A, Jha S. Fetus-in- fetu presenting as intrahepatic teratoma in an adult male. National Journal of Medical and Allied Sciences 2014; 3(2):57-59