

## **A Rare Case Report of Fetus in Fetu Complicated By Blunt Abdominal Trauma**

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**Abstract:** Fetus in fetu is a rare condition in which a fetiform calcified mass is present in the abdomen of its newborn. Less than 100 cases have been reported worldwide till date. We present a fetus in fetu in a 3 day old child which got complicated by trauma later. We managed the case successfully electively with timely surgery and successful outcome in spite of trauma.

**Keywords:** Fetus in Fetu, Blunt abdominal trauma, Timely Surgery

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### **INTRODUCTION**

Fetus in fetu is a rare condition in which a fetiform calcified mass is present in the abdomen of its newborn. Less than 100 cases have been reported worldwide till date [1]. Fetus in fetu is a term originally coined by Meckel around 1800. In 1956, Lord first reviewed 11 cases of this rare lesion and defined fetus in fetu as being a parasitic twin found within the abdomen of its sibling. Willis defined it as a benign mass differentiating it from teratoma which can have malignant potential.

### **CASE REPORT**

A 3day old male child was referred to Pediatric surgery unit at our tertiary care center in India in view of a palpable lump in abdomen noticed by the neonatologist during routine examination of the neonate. There was no history of difficulty in feeding. Baby was passing urine and stools normally. Antenatal ultrasound was done late in third trimester which was unable to pick up any anomaly. Examination revealed a firm to hard large lump in left hypochondrium and left lumbar region. Xray, Ultrasound and CT scan concluded a 6.3 X 6 X 5.2cm heterogeneous predominantly cystic lesion in the peritoneal cavity with bones resembling toes of feet, vertebral bodies, hip and long bones suggestive of fetus in fetu. The lesion was indenting stomach and displacing left ureter posteriorly. A branch of Superior mesenteric artery was seen to supply the lesion.

Patient was thriving well. Parents were advised surgical excision after neonatal life is over as the lesion wasn't causing any immediate threat.

Parents followed up at age of 4 months directly with alleged history of trauma to abdomen by fall from cradle from an approximate height of 3 feet. Baby had moderate abdominal distension with shifting dullness. There was no other significant (head/chest/limbs) injury. Ultrasound revealed 8X7.4X6.2 cm lesion with moderate free fluid in abdomen and pelvis suggesting rupture of one of the cysts in the lesion. We aspirated the fluid to demonstrate the appearance as clear straw coloured fluid. Patient was conservatively managed then.

Surgery was planned electively 3 weeks later. Intra operatively the supplying branch of superior mesenteric artery was taken control of first. Complete excision of the capsulated lesion was achieved.

A globular mass covered with skin and hair with eyelike structure and proboscis, limb like buds with 3 ill formed digits in one and 7 digits in another fused limb like structure, were seen along with 2 masses mimicking spleen/liver connected with intestine or tongue like mass with gelatinous mass with hard bony mass.

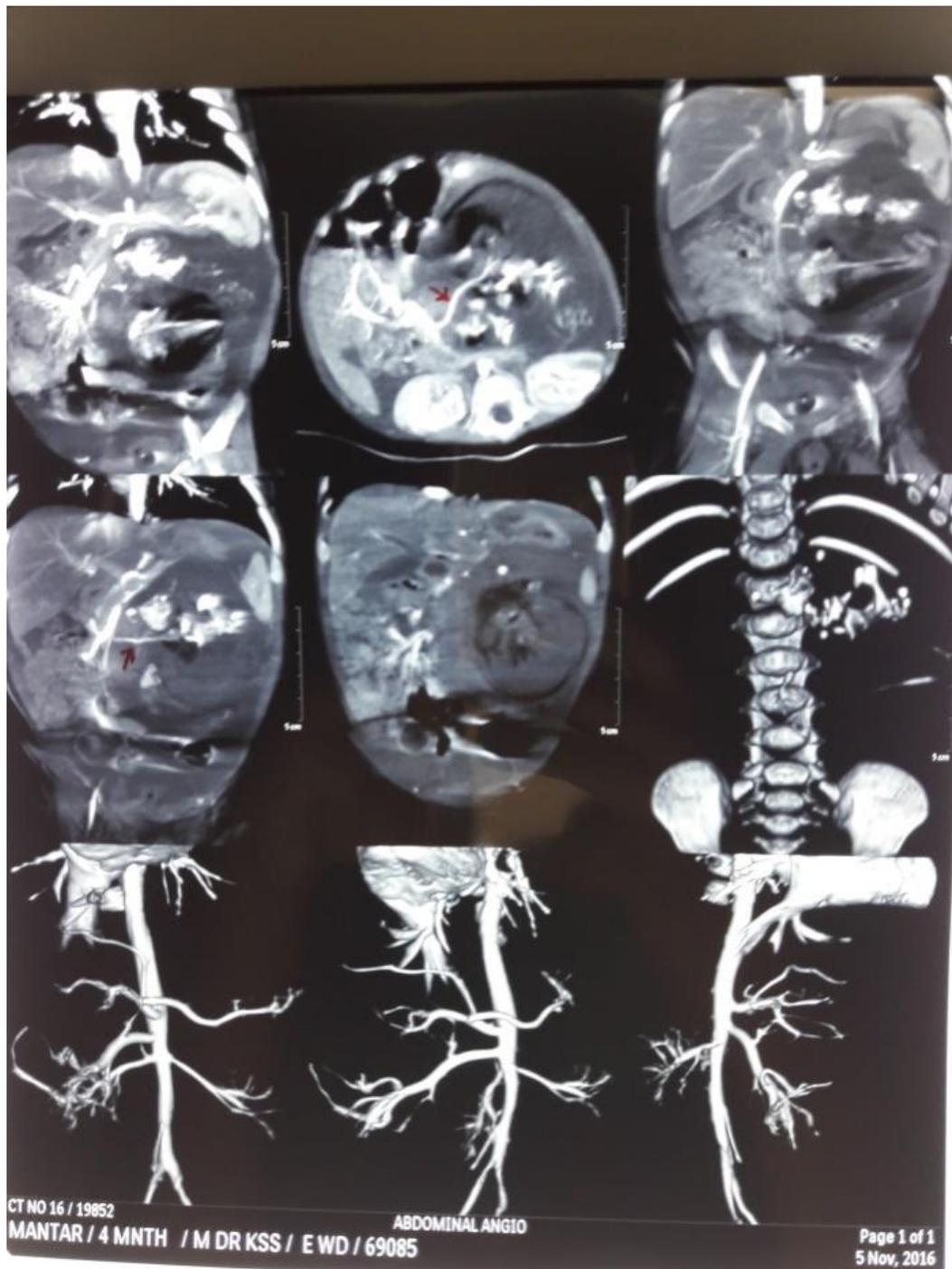
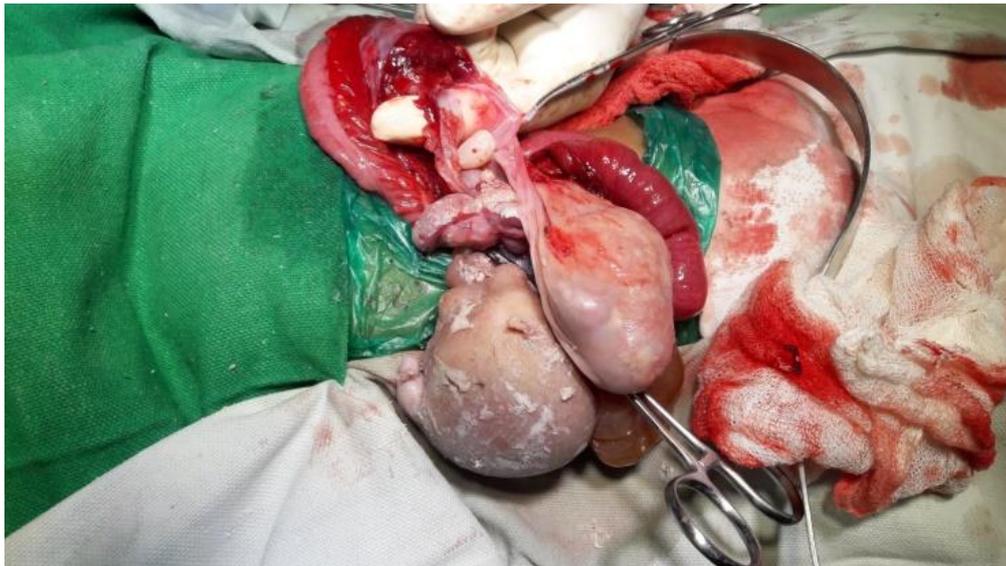


Fig-1: CT scan



**Fig-2: Intraop Photo**



**Fig-3: Specimen Photo**

## DISCUSSION

Fetus in fetu is a rare condition with an encapsulated, pedunculated vertebrate tumor. An estimate of 0.02:10,000 is commonly reported, but this number is based on the unsubstantiated assumption that fetus in fetu represent 5% of conjoined twins [3]. The current well accepted trend is that fetus in fetu is not a form of conjoined twins; rather is well differentiated form of mature teratoma.

Fetus in fetu is a term originally coined by Meckel around 1800. In 1956, Lord first reviewed 11 cases of this rare lesion and defined the entity as being a parasitic twin found within the abdomen of its sibling. Willis, in 1935, proposed a theory of pathogenesis commonly called a fetiformteratoma theory in which he defined it as a benign mass differentiating it from teratoma which can have malignant potential [7]. He stated that it is a mass made of limbs and/or organs around axial skeleton. But in later reported cases of fetus in fetu, malignancy was rarely reported.

The other proposed theory is included twin theory suggesting rare form of monozygotic twinning

whereby an aberrant asymmetric twin becomes internalized in the other twin thus acting endoparasitically. Developing from a single ovum, they usually share the same sex, blood group and exactly the same and normal karyotype [8]. This is further strengthened by demonstration of trisomy 21 in both the host as well as fetus in fetu by Lee *et al.* [9].

There are different definitions of fetus in fetu. The minimal criteria generally required include the presence of an axial skeleton or a fetus with metameric organization, skin coverage, encapsulation and a two vessel cord [2].

Spencer has suggested that a fetus in fetu must have one or more of the following conditions:

- Be enclosed within a distinct sac;
- Be partially or completely covered by normal skin;
- Have grossly recognizable anatomic parts;
- Be attached to the host by only a few relatively large blood vessels and
- Either be located immediately adjacent to one of the sites of attachment of conjoined twins or

be associated with the neural tube or the gastrointestinal system [5].

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More than three fourths of all fetus in fetu cases occur in the abdomen or retroperitoneum [6]. Most fetuses in fetu are connected to the host by vessels originating from or around the superior mesenteric artery [4].

With the advent of antenatal ultrasound and better neonatal care its diagnosis has been achieved early in neonatal period which makes further planning of surgery easier and relatively free of complications. Some of the previously reported cases had long interval between age at detection and age at surgery thus causing problems such as compressive symptoms and hemorrhage.

Left alone, fetus in fetu do not seem harmful to the host, but in every case in which the fetus in fetu was not removed at the time of discovery, a slow growth has been described [2]. In view of the complications such as compression, hemorrhage, torsion, ruptures, surgical excision after the neonatal period is advised.

#### Acknowledgement

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#### Disclosure

This case report has not been published or presented anywhere else.  
There is no conflict of interest.

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