



# Abdominal fetus-in-fetu in a two-year-old boy

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## DECLARATIONS

### Competing interests

None declared

### Funding

None

### Ethical approval

Written informed consent to publish was obtained from the patient or next of kin

### Guarantor

YG

### Contributorship

YG and J-HW performed the operation; T-QL read the X-ray graph; and JZ did the pathological work. YT and P-AH and C-QG conceptualized the report and drafted the manuscript. C-QG revised it critically and made final approval of the version to be published.

Fetus-in-fetu (FIF) is a mass that is characterized by containing a vertebral axis often associated with other organs or limbs around this axis. It is rare and the preferred management is to complete resection of the mass whenever it is possible.

## Case report

A two-year-old boy was admitted with a complaint of epigastric mass for eight days. Physical examination showed a 10 cm × 10 cm × 6.5 cm mass filling the upper left part of the abdominal cavity. Except for the presence of the mentioned mass, the remaining clinical and laboratory findings were within normal ranges.

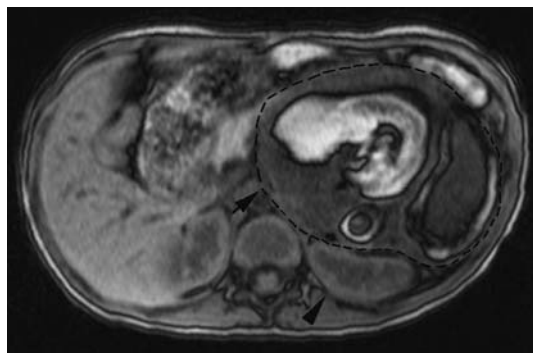
Magnetic resonance imaging (Figure 1) showed a mass (arrow) containing a vertebral axis. The pancreas and bowel loops were displaced by

the mass. The left kidney was disfigured due to the pressure of the mass (arrow head). Pathological examination (Figure 2) confirmed the mass to be a fleshy structure resembling a fetus with vertebral axis (black arrow), limbs (black arrow head), placenta (white arrow head) and hair (white arrow). Postoperative period was uneventful. At the six month follow-up visit, the patient was well.

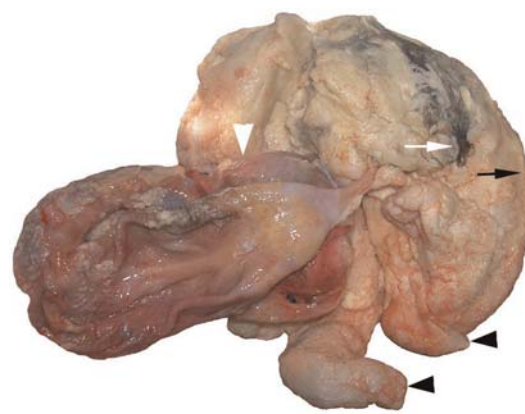
## Discussion

Fetus-in-fetu (FIF) is a term coined by Meckel in 18th century and defined by Willis in 1953 as

**Figure 1**  
Magnetic resonance imaging showing a mass containing a vertebral axis



**Figure 2**  
Pathological examination of the mass showing a fetus with vertebral axis (black arrow), limbs (black arrow head), placenta (white arrow head) and hair (white arrow)



All authors  
contributed equally

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**Reviewer**

Shousong Cao

'a mass containing a vertebral axis often associated with other organs or limbs around this axis by which it is differentiated from the highly differentiated teratoma', is a rare entity where a monozygotic diamnionic, parasitic twin is incorporated into its sibling early in embryonic development and grows inside it through the blood supply of the host circulation.<sup>1-3</sup> Complete resection of the mass is preferred whenever it is possible. Although it is considered to be benign in

nature, malignant transformation has been reported.<sup>1</sup>

**References**

- 1 Majhi AK, Saha K, Karmakar M, *et al.* Fetus in fetu – a mystery in medicine. *Scientific World Journal* 2007;7:252–7
- 2 Escobar MA, Rossman JE, Caty MG. Fetus-in-fetu: report of a case and a review of the literature. *J Pediatr Surg* 2008;43:943–6
- 3 Hoeffel CC, Nguyen KQ, Phan HT, *et al.* Fetus in fetu: a case report and literature review. *Pediatrics* 2000;105:1335–44

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