A Foetus in the Abdomen of a Boy

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I WOULD LIKE to record this rare case of "A Foetus in the Abdomen of a Boy", aged 2 months. This case is interesting because it is probably the youngest boy on record who has been successfully operated upon. Up to date, the boy is growing up normally. The last published case from this region was by Dr. Gopal Haridas in 1949.

Case Report

The patient, a Malay male infant, was first admitted to our paediatric ward on the 9th. June, 1969, when he was only 43 days old. The parents had noticed that there was a gradual distension of his abdomen since the age of 1 month. There were occasional episodes of vomiting, but his bowel habits were normal. The mother had been breast feeding him satisfactorily since birth.

Clinical examination on that day revealed an enlargement of the abdomen. On palpation, a cystic mass was felt in the right hypochondrium, about 8 cms. in diameter. A plain X-ray of the abdomen was done (**Fig. 1**) and it showed a large soft tissue mass shadow occupying the right upper part of the abdomen, displacing the gut downwards and to the left.

Before further investigations could be done, the mother took the child home at her own request and against medical advice. (This is common in this country). But the mother brought the child back for re-admission on the 1st. July, 1969. The abdomen then had further increased in size. She then allowed the child to be fully investigated.

Previous History

There were no complications during the period of pregnancy. Neither was there any history of irradiation nor the ingestion of unusual drugs. The child was delivered normally at full term. Birth weight was 7 lbs. Post-natal examination report, on 18th. May 1969, recorded the child as healthy with a weight of 8¼ lbs.

Family History

The patient is the fourth son in a family of four. The elder two brothers are alive and well but the third died of pneumonia at the age of 2 months. There is no past history of twins in the family. The mother has no history of abortion.

Clinical Examination

Clinical examination on the 1st, July 1969, i.e. on the second admission, showed the general condition as fair and he appeared to be undernourished. The skin had little subcutanous fat, the limbs were thin, the cry feeble, and the child was easily exhausted during the course of the physical examination. The chest, with prominent ribs, was small in comparison to the grossly distended abdomen. The respiratory efforts were mainly thoracic as diaphragmatic movements were impaired. There was also a small umbilical hernia.

Palpation revealed a large cystic mass extending from the right hypochondrium to the right iliac fossa and encroaching medially up to the umbilicus. The mass could be felt per rectum.

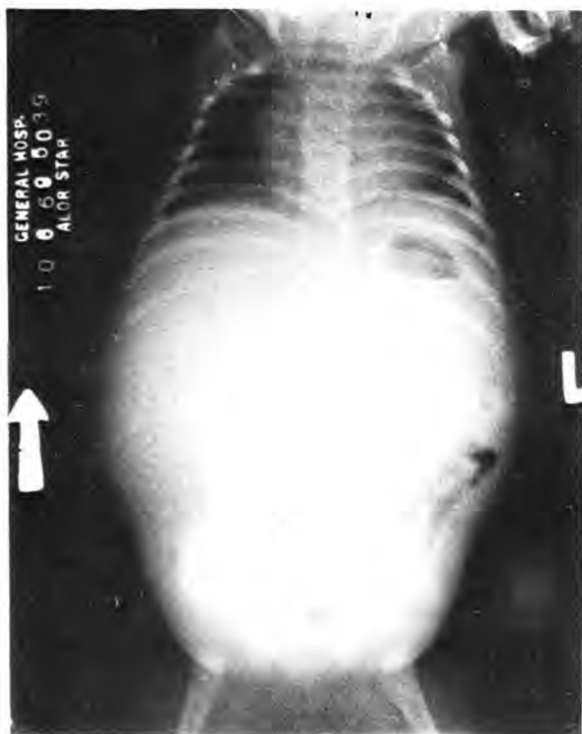

Fig 1
Plain X-ray of abdomen showing a large soft tissue mass shadow pushing the gut downwards and to the left.

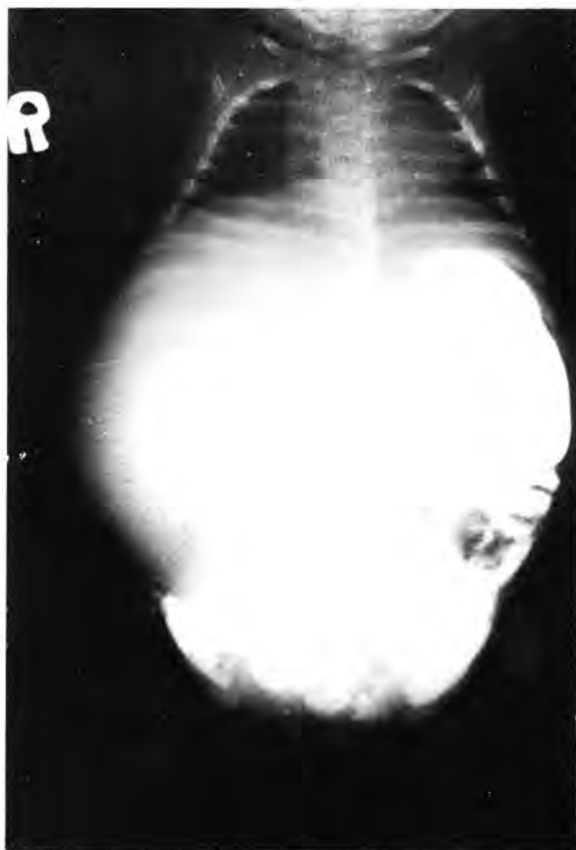

Fig 2
Barium meal and follow-through: shows stomach and duodenum displaced laterally to the left, with the small intestines also pushed downwards and to the left into the pelvis.

Investigations:

Plain X-ray done – mass larger than in previous film; no calcification detected; gut pushed to the left. The kidney shadows not seen. The appearance was suggestive of tumour of the liver or retroperitoneal tumour. Dermoid was thought of.

Barium meal **(Fig. 2)** showed stomach and duodenum displaced laterally, forwards and to the left. Further views showed that the stomach and duodenum were displaced anteriorly, i.e. the tumour was situated posteriorly.

I.V.P. **(Fig. 3)** showed both kidneys present and both excreted the dye satisfactorily. The right kidney lying in, or actually pushed, into the pelvis (over the right iliac bone). The left kidney was normal. The calyceal systems were normal.

The blood urea was normal (24mgm per 100 mls. blood).

Our investigations showed that the mass was a retroperitoneal cyst or tumour which was pushing the liver upwards, the right kidney downwards and the gut towards the left. The abdomen continued to get larger (25 ins. in circumference) and the patient became dyspnoeic. It was then decided to do a laparotomy. Laparotomy was done on the 20th. July 1969 under a general anaesthetic.

A transverse muscle-cutting incision, from below the 12th. rib to beyond the umbilicus, was done. A large cyst containing clear-coloured fluid was opened up. At the posterior wall of the cyst, a mass, 6 cms. X 2 cms., resembling a malformed foetus was seen. **(Fig. IV)** shows the mass. The cyst was adherent to the inferior surface of the liver but was dissectable. The lower end of the cyst was adherent to the right kidney, but was also dissectable. The cyst, together with

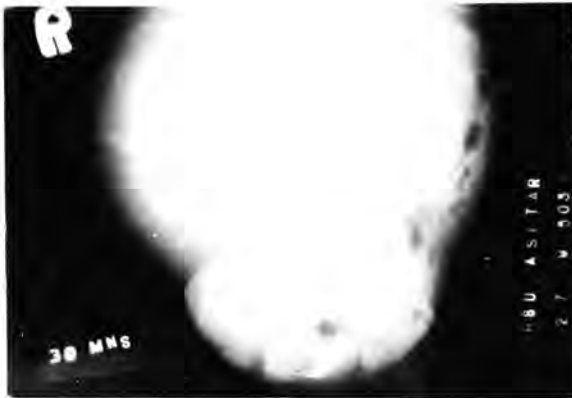

Fig 3
I.V.P. showing both kidneys present and excreting dye well: right kidney pushed into pelvis, left kidney in normal position.

Fig 4
The "foetus" with its limbs and its position in the abdomen as seen at laparotomy.

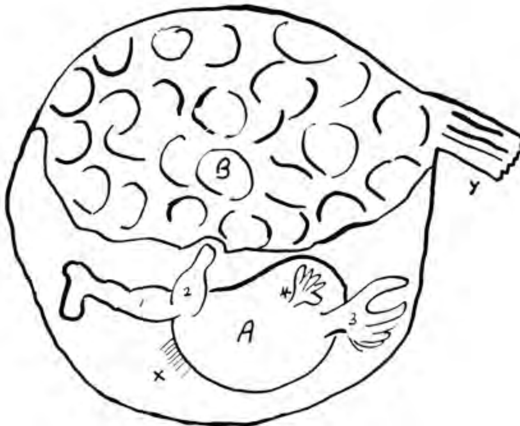

Fig 5
A — "foetus"; B — soft cystic mass; 1, 2, 3, 4 — limb buds; X — hairs; Y — pedicle, i.e. blood supply to mass from right renal vessels.

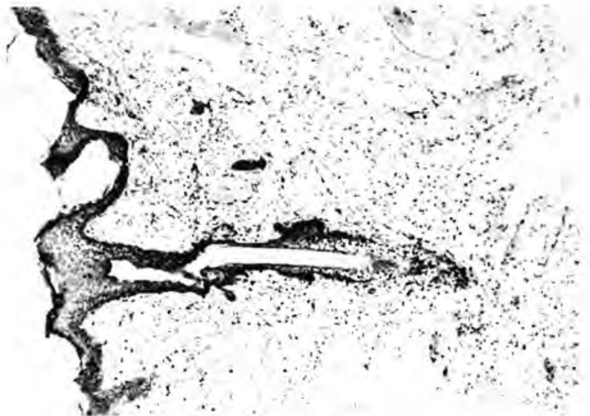

Fig 6
Microphotograph showing dermal elements.

Fig 7
Microphotograph showing glandular elements, bone and cartilage.

the foetus-like mass, was completely taken out. As the blood supply came from the right renal vessels, the right kidney had to be sacrificed.

The patient made a slow but steady recovery and was discharged on the 21st. August 1969. Regular follow-ups showed that he was well and putting on weight.

The whole specimen was sent to the hospital pathologist, who reported as follows:

Naked eye appearance **(Fig. V)** The tumour is cystic with solid areas, almost rounded, measuring 10cms. in diameter. The cyst wall found torn in many parts (by operation). It consists of two areas — a solid

looking one (A in **Fig. V**), almost resembling a malformed foetus measuring 6cms. X 2cms. (in the widest area), with rudimentary looking limbs at either ends, irregularly placed and varying in size and shape (see 1,2,3,4 in **Fig. V**). No bony areas seen in the limbs, when the main mass was cut into. It was found to be composed of dense tissue with a cartilaginous feel in some areas. A few hairs were also seen (C in **Fig. V**). The other areas (B in **Fig. V**) were cystic all over – honeycombed in appearance. The cysts vary in size and shape.

Microscopic examination (**Figs. VI & VII**) section from 'A', i.e. the rudimentary foetus, showed dermal structures stratified squamous epithelial lining with sweat, sebaceous glands, hair follicles, areas of cartilage, bone and glandular structures mixed up with fibro-fatty areas and vascular mesenchymal tissue. Section from 'B' showed mostly fibro-fatty tissue with mesenchymal areas with few cysts lined by low cubical or atrophied epithelium.

Comments:

Is this a highly differentiated teratoma or an arrested development of the second twin in the body of the first twin? We cannot say.

Summary:

1. A rare case of "a foetus in the abdomen of a boy" is reported.

2. Diagnosis was made only after laparotomy as pre-operative X-rays showed no calcified parts. It is intersting that X-rays of the removed specimen showed areas of calcification.

3. This is probably the youngest boy to be successfully operated upon for such a condition.

4. It is the first reported case from Malaysia.

Acknowledgements:

In conclusion, I have to thank the Director General of the Malaysian Medical Services, Tan Sri Dr. Mohamed Din, for permission to publish this case; Dr. C. Subramanyam for the pathology report; Prof. Shanmugaratnam, University of Singapore, for his comments and microphotographs; Dr. T,G. Lim for the excellent general anaesthetic; Dr. Bhajan Singh for the photographs; and finally, Dr. Chin Yoke Hong and Dr. Y. Muthupalaniappan for help in the preparation of this paper.

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