

## Mesenchymal Hamartoma of the Liver: A Case Report

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### Summary

**Babaoye FA, Abdurrahman MB, Garg SK, Jibril HB, Parameswaraiyah S and Agarwal SC. Mesenchymal Hamartoma of the Liver: A Case Report.**

*Nigerian Journal of Paediatrics* 1982; 9: 87. A case of hepatic mesenchymal hamartoma presenting as a huge abdominal mass in a 14-month old child is presented. Intravenous pyelogram showed extrinsic compression of the ureter and the kidney on the right side. Laparotomy revealed a massive pedunculated tumour, weighing 3,400 gm, arising from the right lobe of the liver. The microscopic appearances of the tumour were compatible with the diagnosis of mesenchymal hamartoma of the liver.

### Introduction

MALIGNANT lymphomas, tuberculosis, and various parasitic infestations constitute common causes of abdominal masses in children in the tropics so that benign tumours are often not suspected. Yet, these benign lesions though rare, are amenable to surgical treatment without their recurrence. This communication concerns a case of hepatic mesenchymal hamartoma, one of such benign tumours.

### Case Report

A 14-month old Nigerian female child presented with a history of abdominal swelling for 48 days. The swelling was noticed at the time

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the child had measles. The abdominal swelling was initially small and was observed to be in the right side of the abdomen; it increased rapidly in size and was painful during the last ten days before presentation. There was a brief period of constipation but no diarrhoea or fever after the measles had resolved. There were no respiratory or genito-urinary symptoms. She was the second child of the mother, the first child being alive and well. There was nothing remarkable in the obstetrical, perinatal and developmental histories.

Physical examination on admission, showed a marasmic child, weighing 10 kg. She was neither pale nor jaundiced and had no oedema or peripheral lymphadenopathy. The abdomen was grossly distended. An ill-defined abdominal mass extending into the pelvis was palpable. There was ascites as evidenced by the presence of a fluid thrill. The cardiovascular and respiratory systems were normal. The admission diagnosis was malignant abdominal tumour.

Investigations included Hb, 9.2 gm/dl., WBC,  $7.9 \times 10^9/l$  ( $7,900/mm^3$ ) with a neutrophil of 76%. Haemoglobin electrophoresis was AA.

Chest radiography was normal but the plain abdominal radiograph showed a large dense opacity with the gut pushed to the left and upwards. Intravenous urogram showed compression of the ureter at the pelvic brim with right hydroureter and hydronephrosis. Abdominal paracentesis yielded scanty straw-coloured fluid which revealed cellular debris and degenerated red blood cells.

At laparotomy, an enormous, smooth, reddish-brown tumour was found, filling the entire abdominal cavity. The tumour which had both cystic and solid areas, was attached by a 6.0cm broad pedicle, to the inferior surface of the right lobe of the liver, near its anterior margin. The tumour was resected along with its attachment to the liver without undue difficulty. The rest of the abdominal viscera was normal. The post-operative recovery was uneventful. A repeat intravenous urogram five weeks after the operation showed that the hydroureter and hydronephrosis had disappeared. The child was well at follow-up, two months later.

The excised tumour measured 20 x 20 x 11 cm and weighed 3,400 gm. A cut section (Fig) showed a bulging surface with gelatinous areas and multiple cysts varying from a pinhead to 5 cm in diameter. Microscopy revealed a loose oedematous collagenous fibrous tissue in which there were bile ducts distended to various sizes and also dilated blood vessels.

### Discussion

Mesenchymal hamartoma of the liver is a rare benign tumour that occurs almost exclusively in the first two years of life.<sup>1-4</sup> According to Edmondson<sup>1</sup> who defined it as a distinct clinical entity, the tumour was first reported in 1903 by Maresch. In 1978, Srouji *et al*<sup>4</sup> reported four cases of the tumour and reviewed 25 others in the world literature. Grases and Matos-Torres,<sup>5</sup> also in 1978, reported a case occurring in a 19-year old girl, this being the oldest patient so far documented. Thus, up to 1978, 30 cases had been

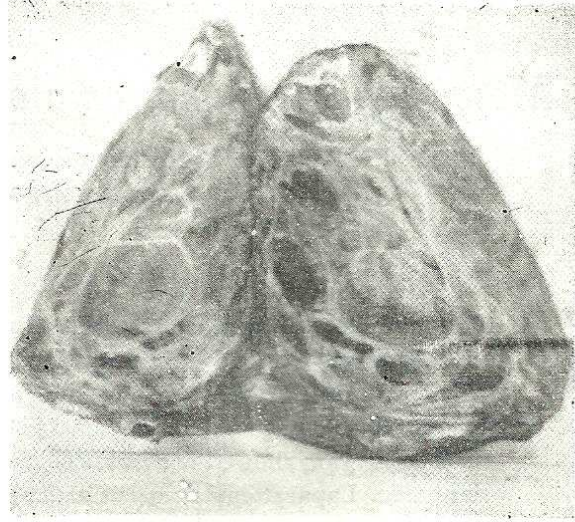


Fig. Photograph of the cut section of the tumour showing multiple cysts of varying sizes.

reported and the present case would appear to be the 31st case reported to date in the English literature.

Most of the cases reported so far, present as asymptomatic abdominal swelling of variable duration. However, occasional symptoms occur and these include abdominal pains, vomiting, constipation, emaciation and jaundice.

The present case developed abdominal pains associated apparently, with a rapid increase in the size of the tumour in the last ten days before hospitalization. The marasmic state of the patient was presumably precipitated by the recent measles. The sex distribution as reported by Srouji *et al*<sup>4</sup> is equal.

Most of the tumours are reported to arise from the right lobe of the liver, while some arise from both lobes and a few from the left lobe alone. In the present case, the tumour arose from the inferior surface of the right lobe as reported by others.<sup>2,4</sup> Histologically, some of the cysts in the tumour are lined with cells having the appearance of mesothelium. This appearance suggests a possible origin of the tumour from the portion of the coelomic tract which gives rise to the mesenchyme of the liver anlage.<sup>1</sup> In the present case, the tumour weighed 3,400 gm and measured 20 x 20 x 11 cm.

The heaviest tumour so far reported in literature weighed 2,060 gm.<sup>6</sup> The case reported here would thus appear to be the heaviest thus far, although in size, it was smaller than the one measuring 30 x 30 x 20 cm, reported by Rewell.<sup>3</sup>

Diagnostic investigations of the tumour include a plain radiograph of the abdomen, intravenous urogram, scantigraphic, angiographic and ultrasonographic studies.<sup>4</sup> In the present case, the only radiographic studies undertaken included a plain radiograph of the abdomen which showed a dense opacity with the gut pushed to the left and upwards and intravenous urogram which revealed compression of the right ureter at the pelvic brim as well as right hydroureter and hydronephrosis.

Percutaneous biopsy is not helpful in the diagnosis since no representative tissue can be obtained. Neither of the above two studies were diagnostic of the tumour whose nature was evident only at laparotomy. Our case serves to

emphasize that in children, a laparotomy should be undertaken even when a tumour appears clinically, to be inoperable.

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