

## Mesenchymal Hamartoma of Liver

**A.N. Gangopadhyay**  
**S.P. Sharma**  
**S.C. Gopal**  
**R. Yadava**  
**N.C. Arya**

Mesenchymal hamartoma of the liver is a rare benign developmental tumor of infants and children(1). This clinical entity was first described by Edmondson(2) and pathologically by Ishida(3). Surgical excision in the form of hepatic lobectomy, segmental hepatic resection(1,4) or simple enucleation(5) is required as rapid growth may cause clinical deterioration. Four male children with mesenchymal hamartoma of the liver have been managed successfully at our children's hospital since 1988.

### Case Reports

*Case 1:* A 10 months male child presented with progressive abdominal distention for 5 months and respiratory distress for the last 2 months. Abdominal examination revealed a large intra-ab-

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*From the Division of Pediatric Surgery, Department of Surgery and Department of Pathology, Institute of Medical Sciences, Banaras Hindu University, Varanasi 221 005.*

*Reprint requests: Dr. A.N. Gangopadhyay, Reader, Division of Pediatric Surgery, Department of Surgery, Institute of Medical Sciences, Banaras Hindu University, Varanasi 221 005.*

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dominal (22x19 cm) cystic lump, occupying whole of the abdomen except left hypochondrium. Ultrasonography revealed a multicystic mass arising from the liver. At exploration the lump was seen arising from the inferior margin of the right lobe of liver and could be excised by wedge resection (*Fig. 1*). The cut surface showed multiple cysts filled with mucoid material. Histopathology showed typical features of mesenchymal hamartoma of liver.

*Case 2 :* A 15 months male child was admitted with asymptomatic progressively increasing lump in the right upper abdomen for 2 months. Examination revealed a huge intra-abdominal cystic lump (14 x 14 cm), occupying the right hypochondrium and lumbar region. The presence of liver lump was confirmed by ultrasonography. Abdominal exploration revealed that the lump was arising from the antero-inferior surface of the right lobe of liver but was not well encapsulated. In order to ensure its complete removal, right partial hepatic (anterior segmental) lobectomy was done (*Fig. 2*).

*Case 3 :* A 3 years male child presented with an asymptomatic mass in the epigastric region for 3 months. Examination revealed a solid intra-abdominal mass (9 x 9 cm) from the left lobe of liver, and the surface was a bit irregular. Ultrasonography showed a solid mass arising from the left lobe of the liver. On surgical exploration the whole of the left lobe was replaced by the mass which was removed by left hepatic lobectomy. The cut surface was mostly solid with tiny cysts in between. The diagnosis was confirmed on histopathological examination.

*Case 4* : A 2 years old boy presented with rapidly increasing abdominal distension and respiratory distress for 2 months. Examination revealed a large tender lump of variable consistency (19 x 18 cm) occupying almost the entire right half of abdomen. Ultrasonography revealed a predominantly cystic lesion arising from the liver. Exploratory laparotomy revealed a multicystic mass with intervening solid tissue occupying the entire right lobe of the liver. The tumor was not well encapsulated and was removed completely by right hepatic lobectomy.

All the 4 cases are being followed up

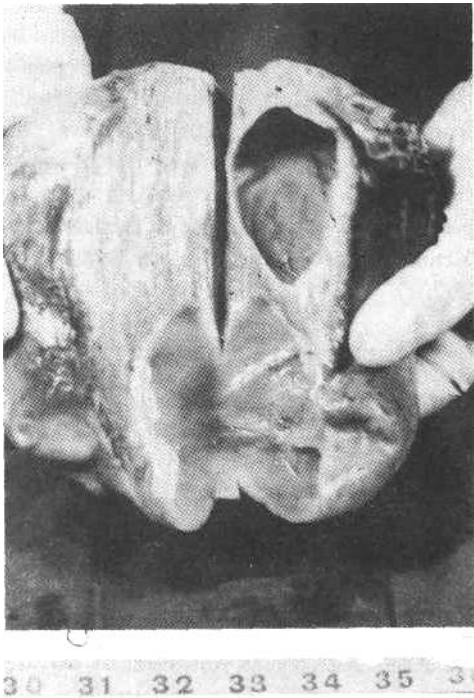


Fig. 1. Cut surface of the specimen of case 1 removed by wedge resection showing multiple cystic spaces.

regularly without any evidence of recurrence on sonography.

### Discussion

Twenty eight per cent of all primary hepatic tumours are benign(6) and 15-30% of them are mesenchymal hamartomas(7). About 200 cases of mesenchymal hamartoma of the liver have been described in the literature(1,3,8-11). Because of its variable presentation it is often difficult to diagnose clinically. Huge asymptomatic cystic lump is the commonest mode of presentation (Cases 1 and 2) which may be confused with other common cystic lumps, *e.g.* hydronephrosis. Rarely the presentation may be acute (Case 4) due to sudden accumulation of large amount of fluid inside the cyst causing confusion with malignant lesions like hepatoblastoma or neuroblastoma(5). Though the mesenchymal hamartomas are predominantly cystic, rarely it may be solid (Case 3) causing confusion with metastatic liver masses.

Histopathologically, to establish the diagnosis of mesenchymal hamartoma five components are recognized, *e.g.*, connective or mesenchymal tissue stroma, serous cyst, bile ducts, hepatocytes and angiomatous component(3). Though majority of the mesenchymal hamartoma of liver reported so far, including the present series are benign, its malignant counterpart has also been described in the literature as 'mesenchymoma'(11).

As the lesion is mostly benign in nature, complete surgical excision leads to cure. However, detailed histopathological examination and regular follow up is essential to rule out its malignant



Fig. 2. Cut surface of the excised specimen of case 2 removed by right partial (anterior segmental) hepatic lobectomy showing the cysts.

counterpart and early recurrence, respectively.

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