Mesenchymal Hamartoma of Liver : A Case Report

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Introduction

Mesenchymal hamartoma (MH) is a rare liver tumour. It constitutes only 0.45% of all liver tumours and 1-2% liver tumour in children [1]. The mean age of presentation is 10 months but few cases are reported in adults [2]. Even though it is a benign tumour, there are reports in literature about its association with malignant changes [3]. Complete excision of tumour is curative [4]. Here we present a case of MH with its management.

Case Report

One year 5 month old boy was brought by parents with history of increasing size of the abdomen of 3 months duration. Child had a normal antenatal period and was born by normal vaginal delivery at a medical college in Kerala. The grandparents noticed prominence of abdomen, when the family had gone on leave to their native place. There was no history of vomiting, fever, jaundice or haematuria. When the boy was examined a lump was palpable as an intra abdominal globular mass filling the entire abdomen except the left upper part. It was firm, smooth, non-tender and mobile from side to side. On investigation all the haematological and biochemical parameters were within normal limits. Ultrasound revealed a mass of size 10/14 cm in the upper retroperitoneum and reported as neuroblastoma and on Doppler study it appeared to be vascular. CT scan of abdomen reported as an intra-abdominal mass with a possi-

bility of hepatoblastoma. MRI of abdomen revealed the swelling to be mesenteric cyst.

The child was explored on 15th Nov 1999 through an upper transverse incision and found to be having a mass of 15/12 cm hanging with a narrow pedicle from segment IV of liver close to the division of the right and left duct. It was excised completely with healthy wedge of liver preserving the hepatic ducts and portal structures. Cut section of the mass looked like glossy oedematous tissue. Histopathologically there were multiple bile ductules in soft tissue stroma intermingled with hepatocytes, which is typical of MH of liver. Child had an uneventful recovery. He is doing well and there is no recurrence of tumour on ultrasound during the 12 month follow-up.

Discussion

The term hamartoma is roughly translated from Greek as a fault or misfire or error tumour and its original meaning was missing the mark in spear throwing [5]. MH is a rare liver tumour but 2nd common tumour in paediatric age group, has also been reported in adults [4,6]. Its histogenesis is debated [3], earlier it was thought to be arising from the developing prenatal hepatic plates, but in one report, on immuno photochemistry study, it has demonstrated positivity for desmin and alfa actin in the lesion, pointing towards fat storing (Ito) cell of the liver. In the same study fibroblast growth factor accumulation is seen

Fig. 1 : MRI of abdomen - T2 waited image, mass filling whole abdomen inferior to the liver

Fig. 2 : Operating photograph, tumour out of the wound with relation to the gall bladder and hepatic ducts

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Fig. 3 : Excised specimen

Fig. 4 : Cut section of specimen

around the periphery of the tumour indicating active proliferative process in childhood [7]. Ultra sound (US) can diagnose MH prenatally [8,9]. The typical finding on US for MH in childhood is hyperechogenic periphery with central hollow [10]. In the present case, a large tumour for the child, US finding was that of a retroperitoneal moderately echogenic tumour which appeared to be very vascular on Doppler. In view of the Doppler finding, needle biopsy was not attempted. In any case, histological diagnosis in mesenchymal tumour is difficult on needle biopsy [1]. Complete excision is curative and is the most favoured modality of treatment [1,4]. Marsupialisation or incomplete excision leads to recurrence [11]. There is one case report of spontaneous regression of MH [12]. MH is a benign tumour, but there are reports of co-existing malignant tumour such as malignant mesenchymoma, embryonal sarcoma and mesenchymal sarcoma [13]. The association of chromosomal abnormality 19q (13.4) in MH in association with mesenchymal sarcoma is reported thrice [14]. In view of the above, a chromosomal study was done during the postoperative period, which was

Fig. 5 : Histopathological microphotograph (HE stain) showing bile ducts in soft tissue stroma

reported as normal. During the follow-up period of 12 months there was no recurrence of the tumour and the child is growing well.

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