

Hemangioendothelioma of the colon

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Summary

Hemangioendothelioma of the transvers colon was observed in a 6-month-old male infant. The disease was first manifested as a right hypochondrial mass. The mass was 5x4x3 cm in diameter. The nature of the mass was recognized histologically as a hemangioendothelioma.

Key words: Hemangioendothelioma, vascular tumors, colon, children

Introduction

Hemangioendothelioma is an uncommon vascular tumor. Histologically, it is intermediate in appearance between hemangioma and angiosarcoma. Colonic hemangioendotheliomas in infants have not been reported previously in the literature.

Case Report

A 6-month-old male infant was referred to our department because of an abdominal mass. His physical examination revealed a mass with 5 cm in diameter in the right hypochondrium. The mass was nontender, solid in consistency, the borders were well defined, regular in shape and it could be easily displaced by palpation. Complete blood count, sedimentation rate, partial thromboplastin time and prothrombin time, were in normal limits. Only serum CEA and AFP levels were slightly higher than normals. Serum CEA level was 5.2 ng/ml and AFP level was 14.2 ng/ml. Ultrasonographic examination demonstrated a semi-solid mass in the right upper quadrant.

At laparotomy, a mass arising from anti-mesenteric surface of the transvers colon was observed. The

mass was 5x4x3 cm in diameter, well defined and encapsulated (Fig 1). Leaving 5 cm tumor free colon on each side, a segment of colon with tumor was resected and end-to-end colo-colic anastomosis was performed. The patient was discharged from the hospital on the 8 th. postoperative day without any complication.

The gross appearance of the tumor was in gray-white colour and it was elastic by palpation. Microscopic evaluation by hematoxyline-eozin staining showed that, the colonic tunica muscularis and submucosa were irregularly infiltrated with neoplastic tissue characterized by numerous vascular channels and interspaced cellular areas with round to oval chromatin-poor nuclei and indistinct cytoplasmic borders (Fig 2). Reticulin staining showed that the cellular proliferations were peripherally limited by a basal membrane (Fig 3). The histopathological diagnosis of the tumor was hemangioendothelioma.

Discussion

Vascular tumors are one of the most common mesenchymal neoplasm of childhood, while infantile hemangioendothelioma is an uncommon vascular tumor that can produce a variety of significant symptoms. Primary tumors in the liver are presented as abdominal masses, hepatomegaly or with symptoms and signs of congestive heart failure^(6,15). Mediastinal tumors may cause recurrent pneumonia⁽⁶⁾. Many others have been detected after initially appearing with thrombocytopenia hemorrhage and disseminated intravascular coagulation^(1,4,5,8,12). Primary mesenteric hemangioendothelioma with inferior mesenteric arter narrowing⁽⁹⁾ and retroperitoneal location, presented with a consumption coagulopathy, complicated by tumor involvement of the inferior mesenteric artery and left mesocolon with resultant ischemic colitis⁽¹¹⁾ was reported previous-

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Fig 1. Gross appearance of the tumoral mass at laparotomy

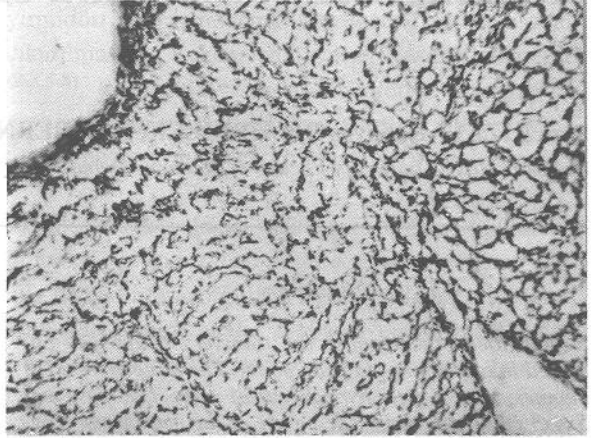


Fig 3. Photomicrograph of the reticulin stained preparation revealing the reticulin meshwork which surrounds small cell groups (Gomori's silver impregnation for reticulin, x200).

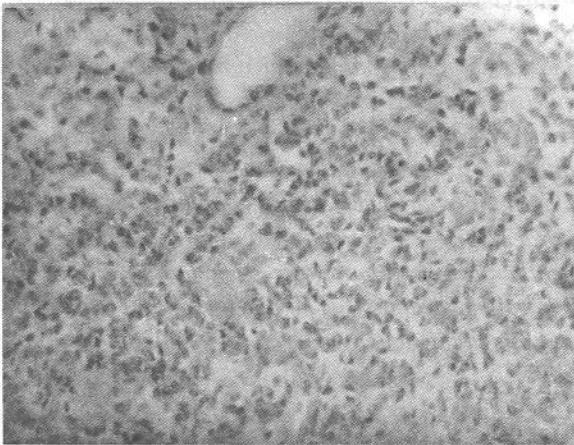


Fig 2. Photomicrograph of the tumor showing neoplastic cells with chromatin-poor nuclei and indistinct cytoplasmic borders surrounding a vascular channel (HE.x200).

ly. Additional tumor involvement was noted in the anterior abdominal wall, retroperitoneum, left colon, thigh, buttock, kidney and bladder which all evidence a highly invasive tumor. No sarcomatous elements or any features typical of the "malignant" hemangioendothelioma variant were found^(7,10). Therapeutic approaches to hemangioendotheliomas include; surgical resection, radiation therapy, corticosteroid therapy, splenectomy and chemotherapy with cyclophosphamide and 5-fluorouracil. Complete surgical resection is the best therapeutic approach if possible.

In our case, tumor was arising from the antimesenteric surface of the transverse colon. This is the first

reported case of a hemangio-endothelioma arising from the colon of an infant. The patient had no thrombocytopenia and bleeding, but serum CEA and AFP levels were high to call attention to congenital origin.

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