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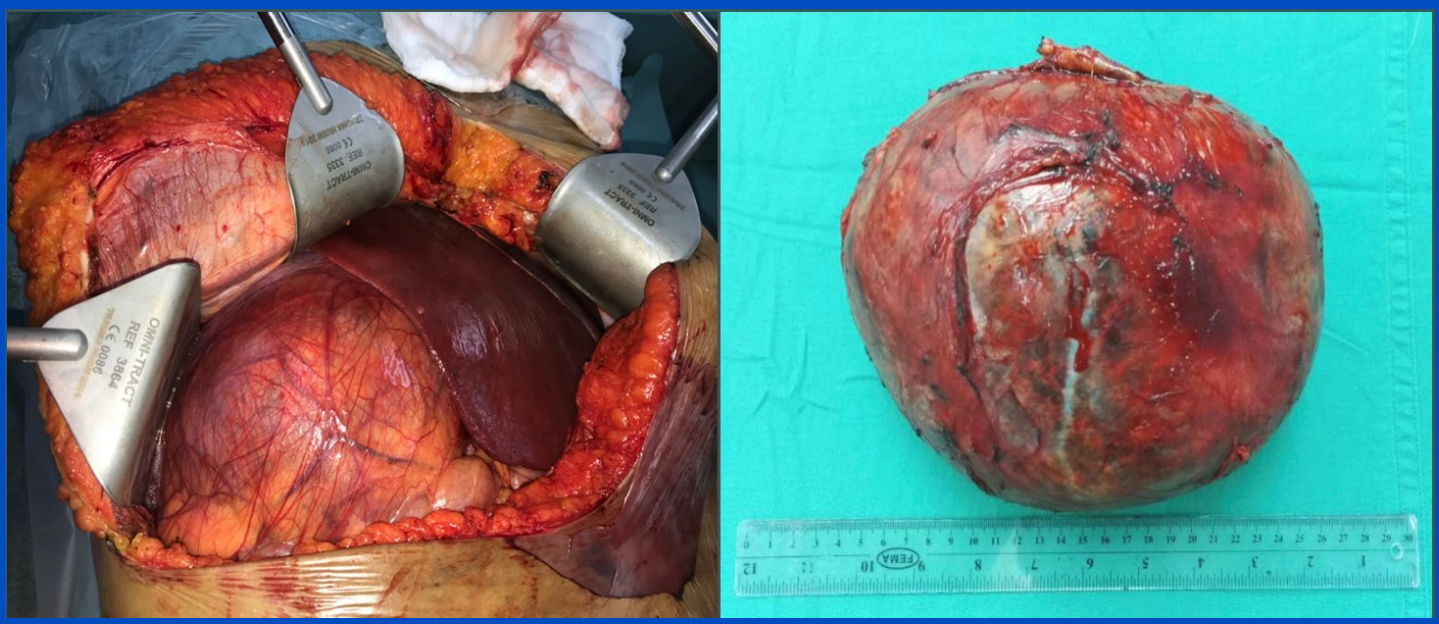

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LARGE PRIMARY RETROPERITONEAL CAVERNOUS HEMANGIOMA.

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ABSTRACT

Primary retroperitoneal cavernous hemangioma is a very rare benign neoplasm. A retroperitoneal hemangioma may be detected accidentally or be symptomatic due to local compression on adjacent structures. We reported on the diagnosis and treatment of a patient with PRCH with a subtle clinical presentation and atypical findings on computed tomography imaging. The patient presented with right hypochondriac discomfort for one month duration. Computed tomography of the abdomen revealed a huge mass arising from right lobe of liver which was compressing the surrounding structures. Intraoperatively there was a huge cystic like mass arising from the retroperitoneum which had clear margin with the adjacent structures. The tumour was successfully excised with an intact capsule and histopathological examination revealed a cavernous hemangioma.

Keywords : cystic; hemangioma; neoplasm; retroperitoneal

INTRODUCTION

Primary retroperitoneal cavernous hemangioma (PRCH) in adults is very rare. PRCH are commonly found in the kidneys, adrenals or pancreas.[1] PRCH does not normally cause any symptoms until it has grown so big that it causes pressure effects to the adjacent organs, at which point, patients may complained of abdominal discomfort or pain, melena or hematuria. Radiological imaging such as ultrasound, computed Tomography (CT) scan and magnetic resonance imaging (MRI) are needed to establish the diagnosis.[2] Surgical excision of PRCH is indicated when the tumour becomes too big that it causes pressure symptoms as well as for diagnostic purpose.[2] We report on a case of a large PRCH in a middle aged woman presenting with one month history of right hypochondriac discomfort which was successfully resected.

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CASE REPORT

A 58-year-old woman presented with right hypochondriac discomfort for one month duration. She did not complain of any fever, chills, jaundice, nausea, vomiting, melena, or hematuria at the first visit. The patient's medical history was unremarkable. Physical examination revealed a large palpable mass over right hypochondriac region. The mass was firm in consistency, smooth surface, non-tender, not attached to skin and less prominent when the abdominal muscles were contracted. Laboratory studies, including tests for serum amylase, creatinine, alanine and aspartate aminotransferases, bilirubin, and urea nitrogen were all normal. Abdominal ultrasound reported a large well defined tumour (12.5x14.5x16.5cm) with central cystic areas in the right hypochondriac region. Further evaluation with CT revealed a large well de-

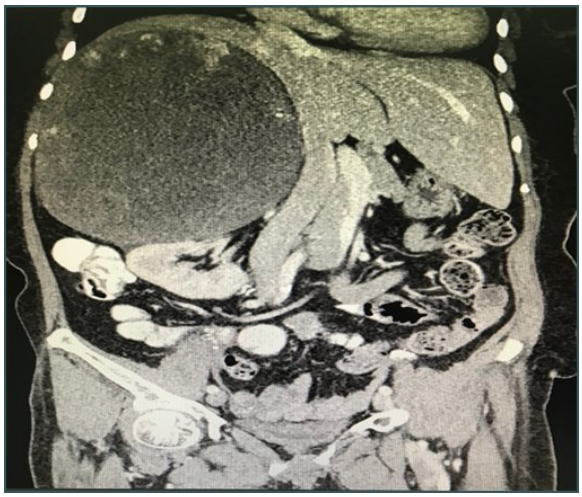

Figure 1. Coronal section CT scan showed huge hypodense mass located at right hypochondrium with increase vascularity at the periphery.

fined heterogeneous tumour measuring 16x14.4x18.2cm at the right suprarenal region with peripherally irregular nodular enhancement [Figure 1]. The tumour showed enhancement on arterial phase (HU 108), intense enhancement on portal venous phase (HU 162) and washout of contrast on delay phase (HU 125). A diagnosis of a hemangioma of the right lobe of the liver was made. Patient was advised and consented for surgical excision of the tumour.

Intraoperative findings was that of a large well circumscribed tumour (22cmx12cm size) over the right hypochondrium arising from the retroperitoneum area and pushing the liver and the right kidney medially. It had a clear margin with the adjacent structures and the tumour was excised via modified Makuuchi incision [Figure 2]. Gross pathology examination showed smooth outer surface. Serial sectioning done showed a well encapsulated solid cystic tumour with friable and septated centre. Microscopically the tumour was ectatic with congested blood vessels in the background of fibrous stroma [Figure 3]. Histopathology examination confirmed a PRCH. Postoperatively the patient recovered well without complication and was discharged by day three.

DISCUSSION

Haemangioma is a type of vascular abnormalities. Cavernous haemangioma most commonly affect skin, mucosa, liver and rarely from retroperitoneal organ such as the adrenal, kidney and pancreas.[1] Adult cavernous haemangioma are uncommon and PRCH are extremely rare. There is no gender predisposition, commonly patient may present with abdominal pain or discomfort and normal blood investigations.[3] PRCH can grow very slowly and reaches a large size before patients become symptomatic from pressure effect arising from tumour compression of the adjacent

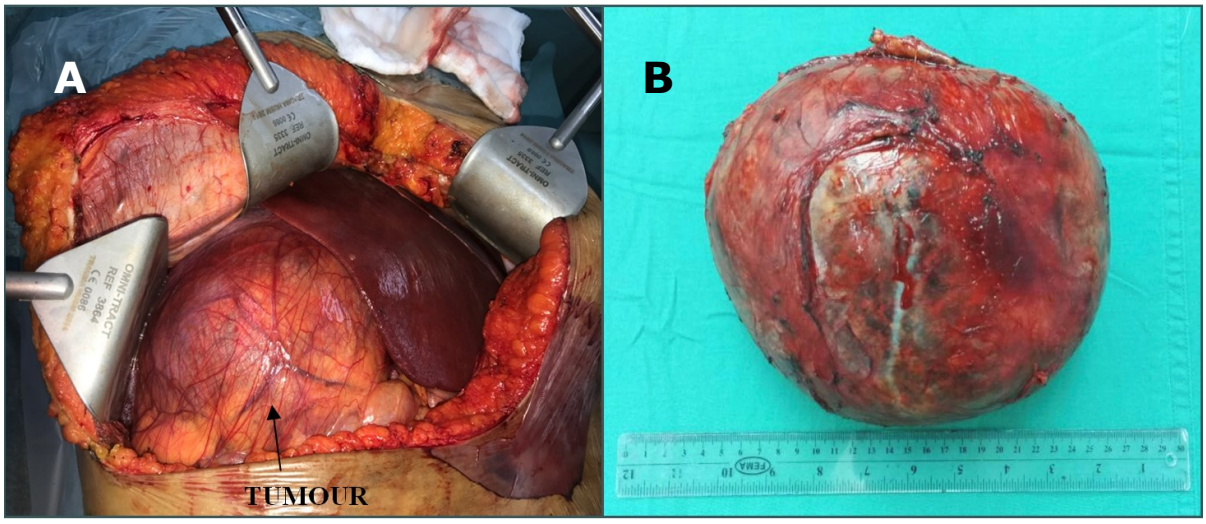

Figure 2 : Intra – operative finding of well circumscribed mass separated from the liver (A) and resected uncut specimen of the haemangioma (B).

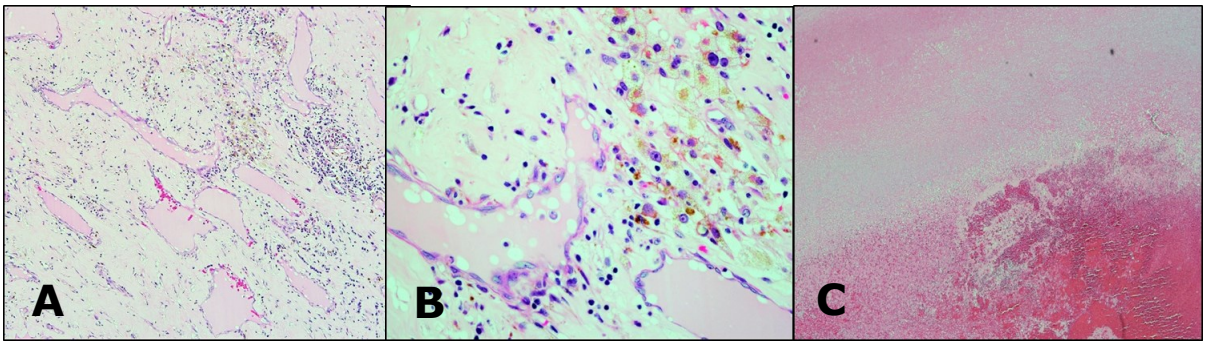

Figure 2: Composite photomicrograph of the tumour. All are stained with haematoxylin and eosin. A) The tumour are composed of mainly ectatic and congested blood vessels with background of fibrous stroma (40x magnification). B)Higher magnification showing the blood vessel lined by endothelial cells. Infiltration of the stroma by hemosiderin laden macrophages and lymphocytes are also seen (400x magnification). C)At the centre of the tumour, abundant blood clot and fibrin are seen (40x magnification).

structures.

Large PRCH may be clinically palpable as a firm smooth mass as with our case. Differential diagnosis of retroperitoneal mass will include teratoma, liposarcoma, leimyosarcoma, cystic renal cell carcinoma.[4] Radiological imaging is generally indicated to assess not just the size, but also consistency of the tumour and effects on intra-abdominal organs. However there is no consensus on which imaging modality is the best for establishing the diagnosis. In our case, ultrasound showed a solid cystic mass in the suprarenal area. Further imaging with contrast CT scan showed enhancement of mass during arterial and portal venous phase and the contrast wash out during delay phase. However, the CT finding of PRCH have not been extensively characterized and CT findings of PRCH may be different according to the organ of origin.[5] PRCH of the pancreas showed strong contrast enhancement compare to normal pancreatic tissue.[6] MRI may be helpful to characterize the inner component of the tumour. [7]

Even though PRCH is considered a benign neoplasm, it can be locally invasive of adjacent structures and may cause destruction of the organ.[3] Hence for patients presenting with large PRCH with pressure symptoms, surgical excision is indicated. Besides pressure symptoms from compression of surrounding structures, PRCH also has a risk of rupture and the resulting intra-abdominal bleeding may lead to serious complication.[8] Although we adopted an open surgical approach in view of large PRCH, laparoscopic or retroperitoneoscopic resection of PRCH have been reported but in cases of smaller size or biopsy confirmed benign PRCH. [9-11] For unresectable symptomatic PRCH, corticosteroid therapy or radiotherapy are alternative treatment options.[11,12]

CONCLUSION

PRCH are rare benign tumours which can grow to substantially large size before patient becomes symptomatic from pressure effects exerted on surrounding organs and structures. Radiological imaging is helpful in determining the structure and size of the tumour. Surgical resection is the best choice of treatment with good long term results.

DISCLOSURE

All authors have contributed to the manuscript equally. None of the authors have direct or financial conflicts of interest with this paper and material contained herein. Authors also acknowledged that consent has been obtained to publish these images.

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