Large Adrenal Myelolipoma- an unusual occurrence

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Abstract

Fatty adrenal tumors are of rare occurrence and have been increasingly reported due to advanced imaging techniques. Although asymptomatic in majority of cases they should be excised to avoid complications like rupture or malignant transformation

INTRODUCTION

Incidental adrenal neoplasms are increasingly detected due to advances in imaging techniques. Myelolipoma of the adrenal is a very rare tumor often diagnosed incidentally and only few cases has been reported so far.[1] We report a case of large adrenal myelolipoma and its successful management by laparoscopic approach.

CASE REPORT

A 36 year old female presented with palpitations for 3 months. There was no history of flushing, sweating, headache, diarrhea, giddiness or any other complaints. Past history was unremarkable. On examination she was normotensive. No organomegaly was detected on abdominal examination. Systemic examination was normal. Routine blood investigations and urinalysis were normal. On ultrasonography a 13×8.5×11.6 cm retroperitoneal hyperecohic well circumscribed mass was detected displacing upper pole of left kidney with no calcification or cystic component. (Figure 1). CT scan (Figure 2) showed a 8.5×9.5×10.0 cm well-circumscribed mass lesion with predominantly fat attenuation (-20HU) and patchy contrast enhancement. The left adrenal gland was not well identifiable. Left kidney, spleen, descending colon and splenic flexure were displaced with a well discernible plane around the lesion with no lymphadenopathy. Endocrine workup including serum cortisol, serum and urinary catecholamines and metanephrines were normal. The patient underwent laparoscopic left adrenalectomy. Cut section of the resected specimen showed brownish yellow areas with soft consistency. (Figure 3) Histopathology showed diffuse sheets of adipose tissue separated by vascular channels and myeloid cells suggestive of adrenal myelolipoma. (Figure 4). The patient has been following up regularly with no fresh complaints.

DISCUSSION

Extrarenal myelolipomas are extremely rare and have been reported in the liver, colon, suprasellar region, small intestine, skin, intranodal, omentum, breast and adrenal gland.[1] Adrenal myelolipoma is a rare hormonally inactive benign neoplasm composed of mature adipose tissue and a variable amount of hematopoietic elements. Lesions are usually unilateral and have female preponderance. Affected patients usually are in fifth to seventh decades.[2] Most lesions are small and asymptomatic. Occasionally, nonspecific abdominal or flank pain may be experienced following intratumoral or peritumoral hemorrhage, tumor necrosis, or mechanical compression from tumor bulk. Rarely hematuria and abdominal mass has been the presenting complaint.[3] Our patient was in third decade and had no specific symptoms. The diagnosis was suggested by imaging characteristics. A predominantly hyperechoic mass on USG may suggest myelolipomas but CT remains the preferred imaging modality. Presence of a focal fat collection in the adrenal mass on CT scan confirms the diagnosis.[4] MRI is also diagnostic and shows hyperintense signal on T1- and T2-weighted sequences. Patients with small asymptomatic myelolipomas may be managed with regular clinical assessment and follow-up imaging. Large tumors bear possibility of spontaneous rupture or rupture following blunt trauma and should be electively excised.[5] We performed laparoscopic transperitoneal adrenalectomy. The procedure and postop recovery was uneventful. Histopathological diagnosis of myelolipoma is challenging and a meticulous search for adipocytes and abnormal blood vessels is

mandatory.[1] The final diagnosis in our patient was concluded following histopathological examination. The association of smooth muscle cells in myelolipomas renders them a potential for local recurrence, hence regular follow-up has been suggested.

Large adrenal incidentalomas may be associated with complications and should be offered surgical removal. Laparoscopy successfully achieves the goal with minimal morbidity. Many of these incidentalomas comprise uncommonly reported fatty adrenal tumors. Characteristic imaging and histopathology parameters confirm the diagnosis in these cases.

References

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