

A RARE CASE OF INCIDENTALOMA – ADRENAL TUMOUR

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ABSTRACT

Adrenal myelolipoma is a rare benign neoplasm composed of mature adipose tissue and a variable amount of haemopoetic elements. Most lesions are small and asymptomatic discovered incidentally. Herein we are reporting a case of right adrenal myelolipoma incidentally discovered in a 48 year old women presented with intermittent, dull aching, vague abdominal pain for the past one year. She underwent total thyroidectomy seven years back for multinodulargoiter and was on Tablet thyroxine 100µg once daily (OD). The Physical examination was unremarkable. Ultrasound abdomen revealed right adrenal mass lesion. Routine investigation were normal and MRI suggested right adrenal myelolipoma(8.6 X 7 X 6.2 cm). Laboratory investigations revealed the non-functioning nature of adrenalmass.The patient underwent open right adrenalectomy with a smooth post-operative recovery. Histopathology revealed adrenal myelolipoma.

CASE REPORT

A 48 yrs old female presented with complaints of intermittent, dull aching, vague abdominal pain for the past one year. No history of abdomen distention, burning micturition, fever, vomiting, gastrointestinal bleeding, headache, sweating, palpitation, loss of weight or loss of appetite. No history of comorbid illness such as diabetes mellitus, hypertension or tuberculosis. She underwent total thyroidectomy seven years back for multi-nodular goiter and was on tablet thyroxine 100µg once daily (OD).

On examination, patient was conscious and well-oriented, afebrile, moderately built and moderately nourished, not anemic, not icteric, no cyanosis and pedal edema. There were no palpable lymph nodes. Her height was 150 cm, Weight was 55 kg, and Body Mass Index (BMI) was 24 kg /m². Her pulse rate – 82 beats per minute, respiratory rate -22 breaths per minute. Her Blood Pressure (BP) on lying posture was 140/100 mm Hg(right upper limb), on sitting posture - 130/100 mm Hg and on standing posture it was 140/100mm Hg. Physician opinion obtained and was advised to take Tablet Prazosin 2.5 mg HS. Her cardiovascular and respiratory systems were

unremarkable. Abdomen was soft, non-tender and no mass was palpable.

USG abdomen revealed right adrenal mass lesion. MRI suggested right adrenal myelolipoma(8.6 X 7 X 6.2 cm).

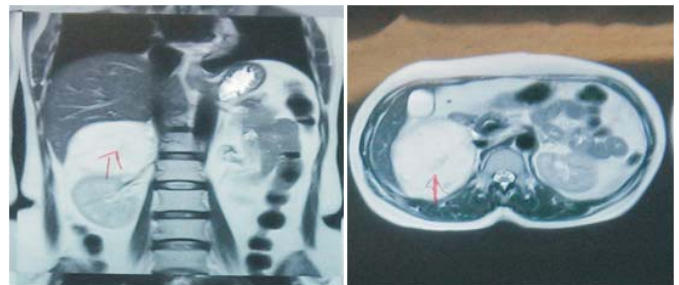


Fig1. MRI image of abdomen showing 8.6cm x 7cm x 6.2cm right suprarenal mass. Left adrenal gland was normal.

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|-------------------------------|----------|----------------------------|
| serum cortisol | 5 µg /dl | 5-25µg/dl (normal range) |
| 24 hour urinary metanephrines | 53.77g | 0-350 g/day (normal range) |
| urinary normetanephrines | 53g | 0-600g/day (normal range) |

Fig1. MRI image of abdomen showing 8.6cm x 7cm x 6.2cm right suprarenal mass. Left adrenal gland was normal.

Hence diagnosis of right adrenal myelolipoma made and planned for open right adrenalectomy.

Pre-operative preparation

Patient was started on Tab. Prazosin 2.5 mg hs to control blood pressure. Anesthetic fitness obtained. Three units of o positive packed redcells and four units of fresh frozen plasma were kept ready.



Figure 2. Excised specimen of right suprarenal mass.

Histopathology revealed myelolipoma measuring 11X7X5cm and weighing 150gm.

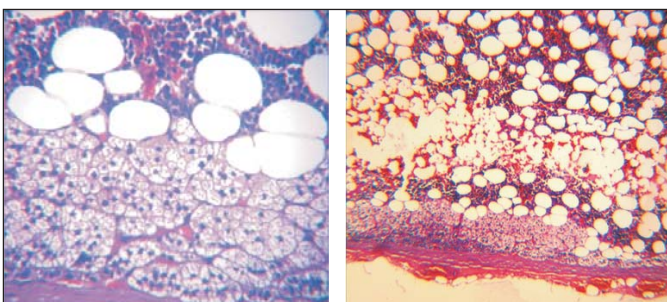


Figure 3. Microscopic section shows compressed normal adrenal gland at the periphery and a benign tumour composed of intimate admixture of mature adipose tissue and all the three lineages of haemopoietic elements.

DISCUSSION

Myelolipoma is a rare, benign tumor like lesion composed of mature adipose tissue admixed with hematopoietic cells. They form 5% to 7% of adrenal

neoplasms. They are mostly unilateral. They commonly occur after the age of 50 years. It can occur in extra adrenal sites in the retroperitoneum[1]. They are called "incidentalomas" because their diagnosis is based on autopsy or imaging modalities which are performed for reasons usually unrelated to adrenal diseases.

Many theories have been postulated for the aetiology of myelolipoma but the widely accepted theory is adrenocortical cell metaplasia in response to stimuli like the following. The stimuli can be stress, necrosis, infection or inflammation [2]. The conditions often associated with adrenal myelolipomas include Cushing's disease, obesity, hypertension, and diabetes which can be characterized as major adrenal stimuli [3]. Stressful lifestyle and unbalanced diet may also be contributory [3]. The tumour occurs more commonly on the right side for reasons not explained [4].

Generally myelolipomas are asymptomatic. The asymptomatic adrenal myelolipomas are usually less than 4cm. The symptoms may arise because of size. A 20 cm tumour weighing 1750 g has presented with a retroperitoneal haematoma in haemorrhagic shock [5]. The mass effect has caused reduced renal perfusion, malignant hypertension and presented as heart failure. Inferior vena caval compression causing pedal oedema [6]. In our case the patient had hypertension even though the hormone profile was normal. Hypertension could have been caused by adrenal medullary compression [7]. CT scan easily identifies a lipoma by means of its fat content (Hounsfield units between -80 and -120); thus, it can be said it is the imaging modality of choice [8]. Surgery is the treatment for symptomatic cases and those lesions where diagnosis could not be established. Large tumors (≥ 6 cm) can be excised by laparoscopy also [1].

CONCLUSION

Adrenal myelolipoma can present as abdominal pain and hypertension. Radiological investigations and a normal adrenal hormone profile helps in establishing

the diagnosis. Symptomatic lesions require surgical excision.

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