



Case Report

# Angiomyolipoma; a rare entity in the left adrenal gland

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## Keywords:

Adrenal;  
Angiomyolipoma;  
Lipoma;

## ABSTRACT

Adrenal angiomyolipoma is a rare benign entity and only sixteen cases have been reported in English literature till date. Other site of occurrence is liver, spleen, lungs, bone and ovary. We report a female aged 54 years, who presented with left flank pain, on CT scan showed left adrenal mass. Patient underwent laparoscopic adrenalectomy and final histopathological examination revealed angiomyolipoma of left adrenal gland.

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Received : May 25<sup>th</sup> 2018 ; Accepted : August 2<sup>nd</sup> 2018; Published : September 1<sup>st</sup> 2018

**Citation:** Bastakoti S, Thakur B, Devkota M, Paudel A. Angiomyolipoma; A rare entity in the Left adrenal gland. J Pathol Nep 2018;8: 1416-18. DOI: 10.3126/jpn.v%vi%i.20897

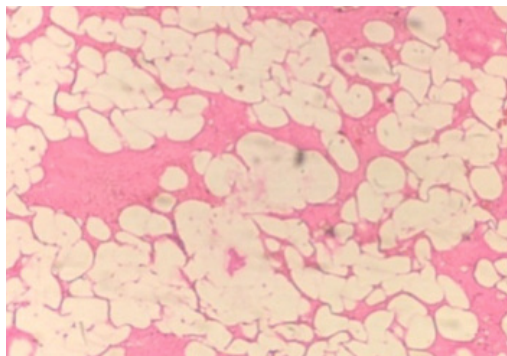
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## INTRODUCTION

Adrenal angiomyolipoma is very rare entity. Only 16 cases have been reported so far in English literature.<sup>1</sup> Angiomyolipoma is apparently a part of a family of neoplasms that derive from perivascular epithelioid cells. It is a rare mesenchymal tumor, usually found in the kidney. Extrarenalangiomyolipoma is uncommon, and the most common extrarenal site is the liver.<sup>2</sup> Here, we present a case of adrenal gland angiomyolipoma in a 54 year female.

## #CASE REPORT

A 54-year female presented with complaint of non-specific pain in left flank for last three and half years. She was under medical treatment for essential hypertension and hypothyroidism. Biochemical examinations including blood urea, serum creatinine and serum metanephrin were within normal limit. On Contrast enhanced CT scan of abdomen, a well-defined non-enhancing fat attenuating mass lesion 8x7x6cm was noted in left adrenal gland. The mass was abutting the superior surface of left kidney. Patient underwent laparoscopic left adrenalectomy. Histopathological examination showed single nodular thin capsulated mass



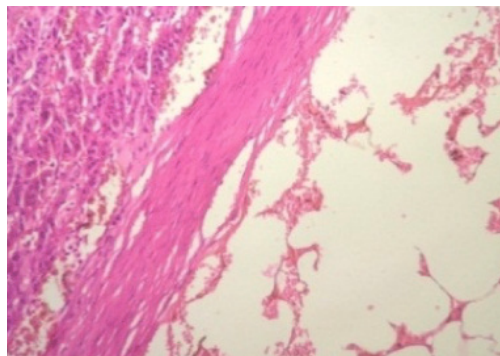
**Figure 1:** Photomicrograph showing adipocytes, few vessels and interspersed smooth muscle bundle. (HE stain, X100).

measuring 8x6cm. Cut section revealed yellowish fatty areas with hemorrhagic areas as well. Microscopic examination exhibited abundant areas of adipose tissue with interspersed varying sized capillary vessels and at places muscle bundle as well. (fig.1) Compressed adrenal gland structures were also seen. (fig.2) The histological picture was consistent with Angiomyolipoma (fig.1,2).

## DISCUSSION

Lipomatous tumor of adrenal gland accounts for 5% of primary adrenal tumor. It comprises of myelolipoma, teratoma, lipoma, angiomyolipoma and liposarcoma. They usually present with nonspecific flank pain or may be totally incidental. The most catastrophic presentation includes retroperitoneal hemorrhage from the tumor because of friable blood vessels. Options for treatment include tumor excision, angioembolization or chemotherapy.<sup>3,4</sup>

Angiomyolipoma of adrenal is extremely rare entity; the diagnosis is based on CT scan and histopathological findings. The later shows relative proportions of fat, smooth muscle,



**Figure 2:** Photomicrograph showing adipocytes, thin fibrous capsule and compressed adrenal gland. (H E stain, X100).

and blood vessels. The smooth muscle component is also variable in appearance. A frequent finding is radial arrays of smooth muscle fibers about blood vessels and also is found in bundles and scattered as individual fibers. The blood vessels are often abnormal, with thick walls resembling those of arteries but with eccentrically placed or very small lumens. In cases with an extreme predominance of fat, angiomyolipoma can be confused with lipoma; extensive sampling may be necessary to identify the vascular and smooth muscle components of the tumor. Tumors with scant fat may be confused with other mesenchymal tumors, such as leiomyoma. Tumors with epithelioid features may mimic epithelial tumors.<sup>5</sup> Similar cases have been reported and are shown in Table 1.

Since it is a benign disease, its prognosis is good. Nevertheless, follow-up is recommended because of atypical morphology. Currently, there is no agreed protocol on follow-up but an ultrasound of abdomen 3 to 6 months following the surgery with annual clinical examination for larger tumor is recommended.<sup>6</sup>

## CONCLUSION

This is extremely rare benign adrenal gland tumor. However due to presence of angio-component hemorrhagic complication may occur. As health screening tools are increasingly used more cases are likely to be diagnosed in future. Histopathology gives the final diagnosis of angiomyolipoma comprising of adipocytes, smooth muscle cells and blood vessel.

**Conflict of Interest:** None

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**Table 1: Case of angiomyolipoma reported in literature.**

Author/year/country	Sex/age	Site
Lam et al /2001/ Hongkong <sup>3</sup>	F/46	Left
Elsayes et al /2005/ USA <sup>7</sup>	F/49	Right
Godara et al /2007/ India <sup>2</sup>	F/45	Left
Sutter et al /2007/ Switzerland <sup>8</sup>	F/32	Right
D'Antonio et al /2009/ Italy <sup>9</sup>	M/42	Left
Chee K et al /2010/ Malaysia <sup>10</sup>	M/61	Left
Yener et al /2011/ Turkey <sup>1</sup>	F/45	Right
Hu et al /2012/ China <sup>11</sup>	F/55	Right
Hafeez B et al /2012/ Pakistan <sup>12</sup>	F/72	Right
Sazuka et al /2013/ Japan <sup>13</sup>	F/68	Right
Goswami et al /2014/ India <sup>6</sup>	F/43	Right
Zhao et al /2014/ China <sup>14</sup>	F/47	Left
Li et al /2015/ China <sup>15</sup>	M/53	Left
Kwazneski et al /2016/ USA <sup>16</sup>	F/65	Right
Present case	F/54	Left

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