

## Case Report

# Adrenal Leiomyoma: a Rare Tumor Presented as an Incidentaloma in a Women with Ovarian Mature Cystic Teratoma

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## ABSTRACT

Adrenal leiomyoma is a rare neoplasm and usually associated with adrenal vein or its tributaries. These are benign in nature and are composed of smooth muscle cells. A sixty years Normotensive, non-HIV lady presented with right adnexal mass diagnosed as Mature Cystic Teratoma along with adrenal incidentalomas for which laparoscopic adrenalectomy was done and histopathology diagnosis was Leiomyoma. These are more common in immunocompromised patients especially HIV and or EBV infection. Adrenal incidentalomas can have a hormone secreting functions or they can be malignant tumors hence a proper evaluation and treatment should be performed.

**Keywords:** Incidentaloma, Adrenal mass, Leiomyoma

## Introduction

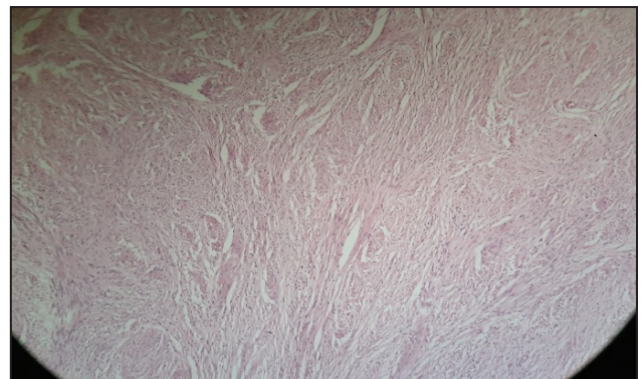
Adrenal leiomyoma is a rare neoplasm and usually associated with adrenal vein or its tributaries. These are benign in nature and are composed of smooth muscle cells.<sup>1</sup> The majority of leiomyomas of the adrenal gland are called as “incidentalomas” because they are found in absence of clinical symptoms and represents an unexpected finding during an abdominal ultrasound or computed tomography (CT) scan.<sup>2</sup> In this paper, we report a case of adrenal leiomyoma, who underwent surgery in suspicion of ovarian malignancy with adrenal metastasis pre-operatively.

## Case Report

A sixty eight years female presented with adnexal mass. On CT Scan examination, 10x7cm ovarian mass likely Dermoid Cyst and a suprarenal mass measuring 5x6cm with differential of Adenoma/Metastasis was suspected. This normotensive lady was a known case of COPD and Diabetes mellitus, for which she was under treatment. All laboratory tests including RFT, Electrolytes, HIV, TFT, tumor markers (CA 125, CEA, AFP), 24 hour urine VMA, Metanephrines and normetanephrines were within normal limit. USG guided FNAC was done from suprarenal mass and

spindle cell neoplasm was suggested.

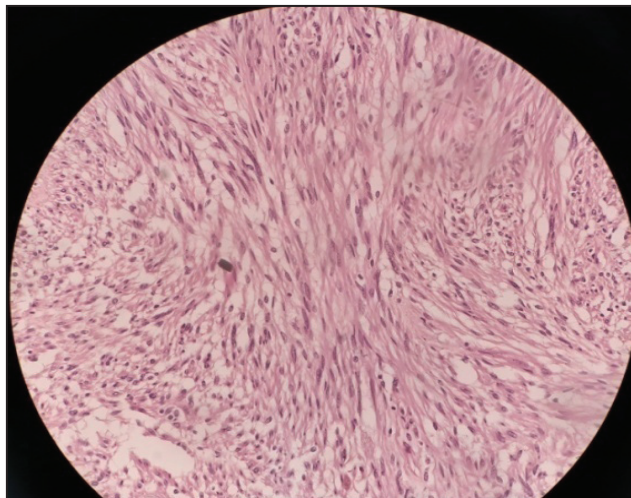
The patient underwent right salpingo-oophorectomy followed by Laparoscopic Left Adrenalectomy. Histopathological examination from the right ovary shows feature of Mature Cystic Teratoma and was devoid of immature component. And left adrenal gland mass measures 7x7x6cm grossly. Outer surface smooth and cut section shows well defined solid greywhite, firm mass. On microscopic examination bundles, interlacing at different angles and sheets of smooth muscle cells having bland nuclei and indistinct cytoplasm. Mitotic figures, necrosis and pleomorphism are not seen. Hence was diagnosed as Adrenal Leiomyoma.



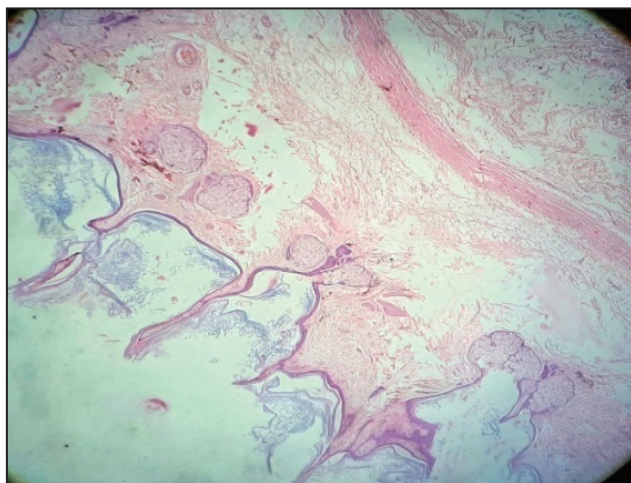
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**Figure 1: HPE from adrenal mass showing bundles fascicles of cells. (H&E,10x)**



**Figure 2: High Power view of homogenous spindle cells in interlacing bundles and fascicles. (H&E,40x)**



**Figure 3: Mature cystic teratoma, ovary: squamous lining, sebaceous glands and adipose tissue.(H&E,40x)**

## Discussion

Adrenal incidentalomas are a well-known phenomenon. The widespread use of CT scan and MRI is expected to increase the number of incidentally discovered adrenal masses. Although leiomyomas of the uterus and gastrointestinal tract are quite common, adrenal leiomyomas are rare tumors. Only a few cases have been reported in the literature. Many reported cases of adrenal leiomyomas co-exist in patients diagnosed with human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) and/or latent Epstein-Barr virus (EBV) infection.<sup>3</sup> In our case, HIV test was negative and EBV status was unknown.

The incidental finding of an adrenal mass creates two queries: is it a malignant tumor, and is it hormonally active? The tumor size (>4 cm) and radiological features of the tumor are used to select patients at

greater risk of malignancy and endocrine evaluation reveal functional status.<sup>4</sup>

Biochemical testing comprises a 24-hour urine collection for catecholamines, metanephrines, and cortisol to exclude a pheochromocytoma or Cushing's syndrome. Patients with hypertension and hypokalemia are evaluated for primary hyperaldosteronism.<sup>5</sup>

This case was non functioning adrenal tumor without clinical and laboratory manifestation. Several studies have elucidated the characteristics of adrenal incidentalomas, showing that 58.0%–86.2% of adrenal masses were non-functioning, 6.0%–10.9% were associated with subclinical Cushing's syndrome, 2.1%–20.0% were pheochromocytomas, and 1.6%–10.0% were associated with primary aldosteronism.<sup>6–10</sup>

The frequency of adrenal incidentalomas range from 1.4 to 8.7% on autopsies, and from 0.5 to 4.4% based on results from imaging studies such as sonography and CT scan. The prevalence of adrenal incidentalomas increases with age, and reaches 7% at age of 70.<sup>6,11–14</sup>

In 1992, the laparoscopic approach to resection of the adrenal gland was first reported. Since its introduction, laparoscopic adrenalectomy has become the standard method for removal of most adrenal tumors.<sup>15,16</sup>

## Conclusion

Adrenal leiomyoma is a rare adrenal tumour, but should be considered in the differential diagnosis of adrenal incidentalomas. These are more common in immunocompromised patients. Adrenal incidentalomas can have a hormone secreting functions or they can be a malignant tumors hence a proper evaluation and treatment should be performed.

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