CASE REPORT OPEN ACCESS

# Monster Extracted out of a Seven Year Old Girl: Adrenal Teratoma – A Case Report

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**ABSTRACT**

Extragonadal teratomas are not common in children and constitute 4% of primary teratomas. Among them adrenal teratoma are even rare and few cases have been reported yet. We hereby report a rare case of adrenal teratoma in a 7-year-old female child presenting with mass abdomen. Complete surgical excision was possible in this case and she is doing well with 1 year follow up.

**Key words:** Adrenal teratoma; Teratoma; Child

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## INTRODUCTION

In Greek “teras” means “monster” and “oma” is a suffix denoting “tumor or neoplasm”. Medically, a teratoma is a congenital tumor originating from all three germ cell layers. Teratomas can arise from sacrococcygeal region (40%), ovary (25%), testicles (12%) and brain (5%). Incidence of a retroperitoneal abdominal tumor is 4%. Cases of the Adrenal Teratoma reported around the globe are 0.9/100,000 population, out of which 10% to 20% occur in adults and rest in pediatric age group [1, 2].

## CASE REPORT

A 7-year-old girl presented with intermittent abdominal pain, for the last 6 months, with each episode occurring 2-3 weeks apart. Pain was sudden in onset, dull, non-radiating, and relieved by painkillers and showed no associated symptoms. Rest of her history was inconspicuous. On examination, she was in good physical health and vitally stable. Abdominal examination showed a vague mass in right hypochondrium, which was non-tender, smooth-surfaced, measuring approximately 8 x 7 cm and immobile on respiratory movements, indicating probable origin from retroperitoneum. Her hematological investigations were within normal range. Her alpha-Fetoprotein (AFP) and beta-HCG were normal. Ultrasonography of the abdomen showed a mostly cystic and partly solid mass in right upper quadrant measuring 8 x 7 cm. Her CT scan abdomen revealed a large, well-defined, fat containing, right suprarenal mass displacing the right kidney inferiorly (figure 1). Cystic component and amorphous calcification were also noted and no local invasion was seen.

Her surgery was planned after optimizing clinical condition and on exploration, white colored mass of 10 x 10 cm was found in the retroperitoneum. It was adherent to kidney inferiorly and inferior vena cava posteriorly. Her complete surgical excision was possible (figure 2). Her postoperative recovery remained uneventful. Histopathology showed adipose tissue with well-formed areas of bone with marrow elements, mature hair, tooth and cartilage, consistent with a mature teratoma. Patient is on regular follow up and is doing well for the last 12 months.

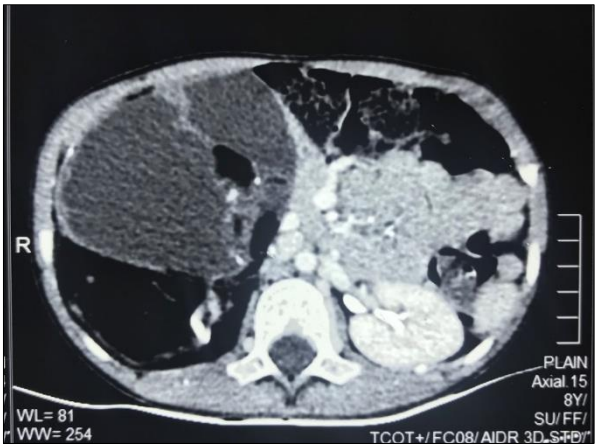

Figure 1: CT Scan of patient

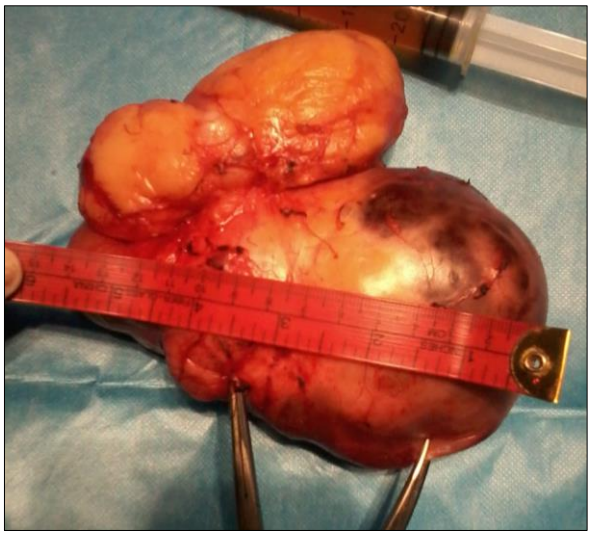
Figure 2: Mass excised originating from adrenal gland

## DISCUSSION

Teratomas can be classified as gonadal and extragonadal, of which gonadal teratomas are primary, more common and occurs mainly in adults while extragonadal teratomas are secondary, mostly occurring in infants and young children. Common sites for extragonadal teratomas are mediastinal, sacrococcygeal, retroperitoneal and pineal gland site. Retroperitoneal teratomas are uncommon and account for only 4% of extragonadal teratomas [3]. They may also be classified on the basis of degree of differentiation into mature and immature teratomas. Mature teratomas are common in females and histologically may be solid, cystic or mixed while immature teratomas are common among males and are histologically solid. Adrenal teratomas are usually benign, asymptomatic or patient may present with abdominal pain, abdominal discomfort, low back pain, flank pain. In our case patient presented with intermittent abdominal pain. It is not associated with elevation of tumor markers until malignant. Patient may present with large cystic mass and mimics adrenal myelolipoma [4,5].

Preoperative diagnosis is difficult, radiographic investigations play important role in diagnosis. In plain X-rays, calcified elements can be identified. Ultrasonography differentiates between solid and cystic elements. CT scan can distinguish between calcified masses and adipose tissue. However, surgical resection of teratoma is required for definitive diagnosis by histopathology and in our case surgical resection was possible and histopathology revealed mature teratoma [6-9].

In review of literature, so far six cases of adrenal teratoma have been reported in pediatric patients less than 12 years of age. Garg et al [9] have summarized all the cases reported till 2017 of adrenal teratoma in their literature review. Since their report, no other case has been reported in English literature. So, by adding our case, total number of cases increases to 7.

Prognosis is usually excellent with 5 year survival rate in up to 100% of cases [10]. However, necessary follow up is required. In our case, follow up inspection is being carried out regularly and patient is doing well. Up till now, no reports of recurrence and malignant transformation have been reported.

**Consent:**

Authors declared that they have taken informed written consent, for publication of this report along with clinical photographs/material, from the legal guardian of the patient with an understanding that every effort will be made to conceal the identity of the patient however it cannot be guaranteed.

**Authors' Contribution:**

The author contributed fully in concept, literature review, and drafting of the manuscript and approved the final version of this manuscript.

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