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**Case Report**

# Mature Retroperitoneal Teratoma in Children about a Case in the Pediatric Surgery Department of the Nianankoro Fomba Hospital in Ségou

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## Abstract

Retroperitoneal teratoma represents 1-11% of primary retroperitoneal tumors [1]. It is generally benign whether mature or immature. The treatment is surgical and the prognosis is excellent in the absence of complications. We report a case of mature retroperitoneal teratoma in an 8-year-old girl revealed by an isolated right paramedian abdominal mass. CT revealed a right suprarenal mass, fatty density with calcifications, without invasion of neighboring structures, measuring 124 mm in transverse diameter, 104 mm in anteroposterior diameter and 174 mm in height. Management consisted of complete excision of the tumor without incident.

**Keywords:** Mature Teratoma, Retroperitoneal, Excision.



## INTRODUCTION

The teratoma is a tumor which develops at the expense of the three layers of the embryo; it is preferentially located in the sacrococcygeal region and at the level of the gonads. Retroperitoneal teratoma represents 1-11% of primary retroperitoneal tumors [1]. It is most often asymptomatic, or discovered when there are signs of compression of nearby organs. Computed tomography is the imaging test of choice used to characterize the tumor [2]. The histological diagnosis is based on the pathological examination of the surgical specimen. The treatment is essentially surgical and is based on excision of the tumor. The prognosis is linked to the degree of invasion of neighboring tissues, the nature of the excision and the histological type of the teratoma. We report a case of mature retroperitoneal teratoma treated in the pediatric surgery department at the Nianankoro Fomba hospital in Ségou.

## OBSERVATION

This was an 8-year-old girl with no particular history, consulted for progressive abdominal distention and intermittent abdominal pain, which had been present for a year. On physical examination she was in good general condition, the temperature was 37°C, on palpation we noted an abdominal mass extended from the hypochondrium to the right iliac fossa, painless, firm, regular and fixed in relation to the plane. deep. Furthermore, we noted a simple umbilical hernia measuring 3 cm in diameter; the rest of the somatic examination was unremarkable. Additional biological tests (CBC, serum creatinine, CRP, TP-TCA) were unremarkable. The X-ray image showed an opacity repressing the digestive structures on the left. Abdominal CT revealed a right retroperitoneal mass, containing fatty densities and calcifications. It was well limited, measuring 124 mm in transverse diameter, 104 mm in anteroposterior diameter and 174 mm in height. It pushed back the liver above and to the left, the right kidney below (Figure 1), came into contact with the lower vena cava (Figure 2) without invasion of neighboring organs suggesting a benign tumor. The treatment consisted of complete excision of the tumor via a transverse supra-umbilical approach (Figure 3). The postoperative course was simple. Discharge was authorized on postoperative day 5. Histological examination revealed a mass containing sebum and hair, the wall lined by a squamous epithelium of adipose tissue, fibrous tissue infiltrated by a few vessels without cytonuclear atypia; the presence of lymphoplasmacytic inflammatory infiltrate and polymorphonuclear neutrophils forming abscesses. He concluded that it was a mature teratoma without histological signs of malignancy. Clinical and radiological follow-ups at 3 months were unremarkable.

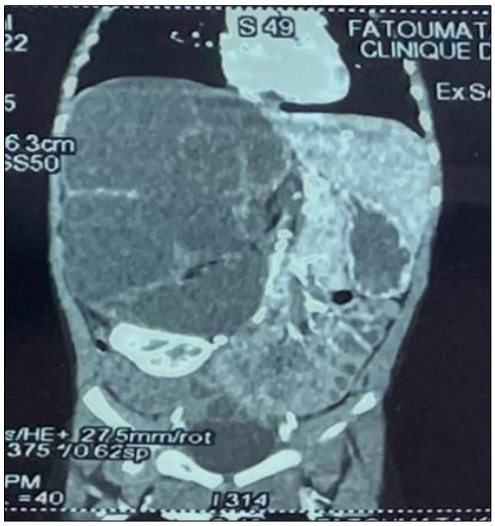


**Figure 1: CT frontal section showing the right suprarenal mass pushing the liver above and left and right kidney below**

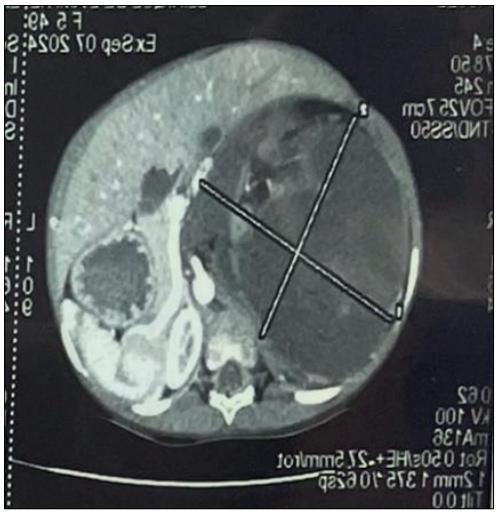

**Figure 2: CT cross-section showing the relationship of the mass to the inferior vena cava**

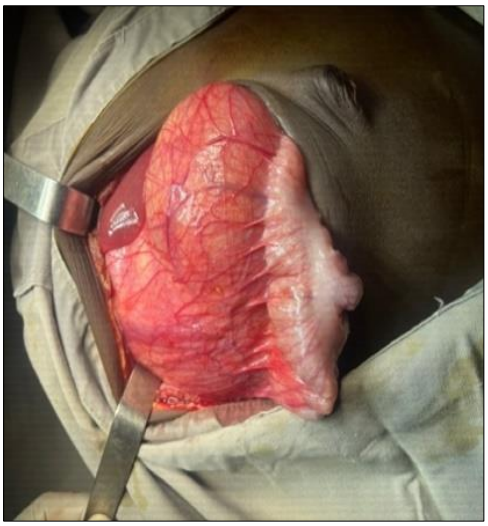

**Figure 3: Retroperitoneal mass**

## DISCUSSION

Teratoma is the most common germ cell tumor, preferentially located in the gonadal and sacrococcygeal regions [1]. Extragonadal locations are rare, such as the neck, mediastinum and retroperitoneum. Retroperitoneal teratoma is the third most common retroperitoneal tumor in children, after neuroblastoma and Wilms tumor. It represents 2-5% of all teratomas in children [1-6]. A female predominance has been reported, such is the case in our observation. However, age less than 5 years, representing 75% of cases [3], was not found in our observation (8 years). This could be explained by a delay in medical consultation in the African context where parents most often opt for traditional treatment. Retroperitoneal teratomas often develop in a suprarenal location and more often on the left side [3]. In our case the particularity is the right suprarenal location of the tumor. The clinical signs are late and are the consequence of the progressive growth of the tumor. This corroborates with our case where we mainly noted an abdominal mass without clinical impact. Most retroperitoneal teratomas are benign (mature or immature) and their malignant transformation is less common than for teratomas of other sites [4]. As tumor mass increases, obstructive symptoms may develop. Common symptoms include back or abdominal pain, genitourinary symptoms, gastrointestinal symptoms (nausea, vomiting, and constipation), as well as lower extremity or genital edema secondary to lymphatic obstruction [5]. In our case it was the intermittent pain and the abdominal mass which were the reasons for consultation. Physical examination may reveal a median or paramedian abdominal mass with limited mobility [5]. CT is a reliable imaging test for the diagnosis and evaluation of retroperitoneal teratomas. The typical radiological appearance is a mixed mass with cystic components, fat and areas of calcification [7]. In our case we noted a mass with fatty densities and calcification. MRI is more efficient for evaluating the relationship between the tumor and the large vessels [8]. The curative treatment for teratoma is surgical and consists of tumor excision. Complete excision is often fraught with complications, especially vascular in teratomas that invade the large vessels [9]. We performed a complete excision without incident. Debulking surgery may be an option for large tumors in which complete resection is difficult or for tumors involving vital arteries.

## CONCLUSION

Retroperitoneal teratomas are rare tumors, diagnosed incidentally or in front of an abdominal mass. Their prognosis is excellent in the event of complete resection, but this surgery remains a challenge due to intraoperative complications, especially vascular complications.

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