

Sacrococcygeal Teratoma in A Newborn in Kay ES (Mali) About 3 Cases

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Abstract

Case Report

Definition: Sacrococcygeal teratoma is a rare disease that most commonly occurs in female children. It is a most often benign tumor detectable before birth and occurs in only one in every 35,000-4,000 newborns. **Objective:** To describe the diagnostic and therapeutic epidemiological aspects of sacrococcygeal teratoma in newborns. **Methodology:** Retrospective descriptive study of three cases carried out in the pediatric surgery department of the Fousseyni Daou Hospital in Kayes from January 2014 to December 2020. **Results:** Extreme ages from 02 to 06 days, all male. The mothers were unschooled housewives and did not perform any antenatal consultations. The three parturients gave birth by caesarean section. The tumor mass was the main reason for consultation. On clinical examination the three teratomas were classified as type 1 according to Altmann. The ultrasound performed showed a heterogeneous retrosacral mass. The surgery was a monobloc resection of the tumor. The postoperative consequences were straightforward after a 10-day hospital stay and follow-up was done on an outpatient basis. Pathological examination of the two surgical specimens revealed a mature teratoma, while this examination was impossible in the third newborn for lack of means. **Conclusion:** Rare tumor in the Kayes region and the course depends on adequate management.

Keywords: Sacrococcygeal teratoma, newborns, tumor, pediatric surgery, monobloc resection.

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INTRODUCTION

Fetal tumors are very rare, but among these, sacrococcygeal tumors are the most frequent. Sacrococcygeal teratoma is a benign tumor that starts from the coccyx and sometimes grows so large during pregnancy that failure in utero can cause fetal death. We report 3 cases that we had operated at the Fousseyni Daou hospital in Kayes from January 2014 to December 2020. The objective was to determine the epidemiological, clinical and therapeutic aspects of sacrococcygeal teratoma in the Kayes region.

Observation 1: This was a 2-day-old male newborn, born by caesarean section with a sacrococcygeal mass. The general condition was good with a weight of 4kg 200 and a temperature of 37 degrees 5. On examination the mass was mobile in relation to the superficial plane and fixed to the coccyx measuring 10 cm / 7 cm. Digital rectal examination did

not find any intra-abdominal extension. Alpha fetal proteins were at 80ng/ml, with normal beta HCG. Ultrasound found a heterogeneous retrosacral mass. The teratoma was classified type I according to the Altman classification and the Anapa th had confirmed a mature teratoma. A one-piece resection plus coccygectomy was performed and the postoperative course was simple. Alpha foeto proteins had returned to normal after 6 months.

Observation II: 6-day-old newborn, male, born by caesarean section, with a sacrococcygeal mass. The general condition was fair with a weight of 5 kg. On clinical examination the mass was firm, fistulin, mobile relative to the superficial plane and fixed to the coccyx measuring 15/10cm. On digital rectal examination there was no intra-abdominal extension. Alpha fetal proteins were at 110ng/ml with normal beta HCG. The ultrasound had found a solid mass with a tissue component. The teratoma was classified as type I

according to Altman and the pathology confirmed the diagnosis of mature teratoma. A one-piece resection was performed plus coccygectomy and the postoperative course was complicated by suppuration. Alpha-foeto proteins had returned to normal 3 months later.

Observation III: 3-day-old male newborn, born by caesarean section with a sacro-coccygeal mass, mobile relative to the superficial plane and fixed to the coccyx measuring 12/8 cm. There was no intra-abdominal extension at TR. The alpha fetal proteins were at 75ng/ml with a normal beta HCG. The ultrasound had found a mass with a liquid component. The teratoma was classified as type I according to Altman and a one-piece resection was performed removing the coccyx. Anatomopathology could not be performed. The postoperative course was simple and the alpha foeto proteins were normal 6 months later.

COMMENTS

The sacro-coccygeal teratoma is a rare congenital tumour, developed from the multipostate embryonic cells of the Hansen node or the neural crest, cells that have escaped the control of the inducing and organizing factors of growth. Several studies have found a female predominance [1, 2, 4, 13], however in our study we found a male predominance, i.e. 3 cases. The distribution in both sexes would be equal in the degenerated forms of sacrococcygeal teratoma. The teratoma is typically of the median seat with the most frequent sacrococcygeal localization ((57 to 60%) followed by gonadal localizations (29 to 60%) especially ovarian [8, 12]. In the literature 50 to 70% teratoma sacrococcygeal teratoma appear during the first days of life, in our study the diagnosis of sacrococcygeal teratoma was made at birth. Less than 10% are diagnosed after the age of two years [6]. In the series of Sanoussi and al in niger [1], the age of children at diagnosis was 1 day to 8 months with an average of 47.34, 1 to 18 days with an average age of 7 days in the series Chirdan *et al.*, [6] in Nigeria. Depending on the size, sacrococcygeal teratomas are classified into small (2 to 5cm), medium (5 to 10cm) and large (sup10cm). The clinical presentation of sacrococcygeal teratomas is variable, ranging from simple induration to a large mass. Cases of fistulizations as in our first observation

have been described [4, 7, 5]. In 10 to 24% TSCs are associated with congenital malformations [9, 11] in our series we did not find any associated malformations. The incidence would be greater in twins and in cases of consanguinity of the parents [3].

The malignant transformation of TSC depends on several factors, the most important of which seems to be the duration of evolution, and the second would be the malignant factor would be type IV. In this study we used the dosage of alpha foeto proteins every 3 months to control the transformation into malignancy. As in our study according to the Altman classification [5, 11] type I is the most frequent, (40-50%) cases and the least prone to malignant transformation. Imaging plays a very important role in diagnosis, characterization, evaluation of lesion extension, and postoperative monitoring [12]. Ultrasound is the examination of choice in antenatal diagnosis and above all makes it possible to establish the indication for a caesarean section for tumors larger than 5cm. In the series by Sanoussi et al in Niger [1] a prenatal ultrasound was only performed in 12 cases (7.4%) and revealed the malformation in only 2 cases. CT and MRI not being feasible in our region, ultrasound was an important contribution to our study, because it allowed us to diagnose our 3 patients and classify the tumors according to Altman. On ultrasound, the TSC presents as cystic, mixed or predominantly solid masses, as is the case with our 3 patients (Fig 1, 2). The mass can therefore variably associate calcium, cystic or even ossification fatty tissue components. On pathology, our two teratomas were classified as mature teratomas. The solid preponderance of the mass and the presence of patches of necrosis are elements in favor of degeneration ref. The diagnosis of TSC is made with other expansive sacrococcygeal processes such as: antero-sacral meningocele, cystic formations (dermoid, epidermoides, lymphangiomas), lipomas, lymphoma; rhabdomyosarcoma) [9]. Surgery is the basic treatment which consists of excision in one piece carrying the coccyx [1, 2, 4, 13] which was carried out in our 3 patients. The monitoring of the transformation into malignancy was made by the quarterly dosage of the alpha foeto proteins which had become normal again, the beta HCG was normal from birth in our 3 patients (Fig 1, 2, 3).



Figure 1: Nouveau ne de 6 jours

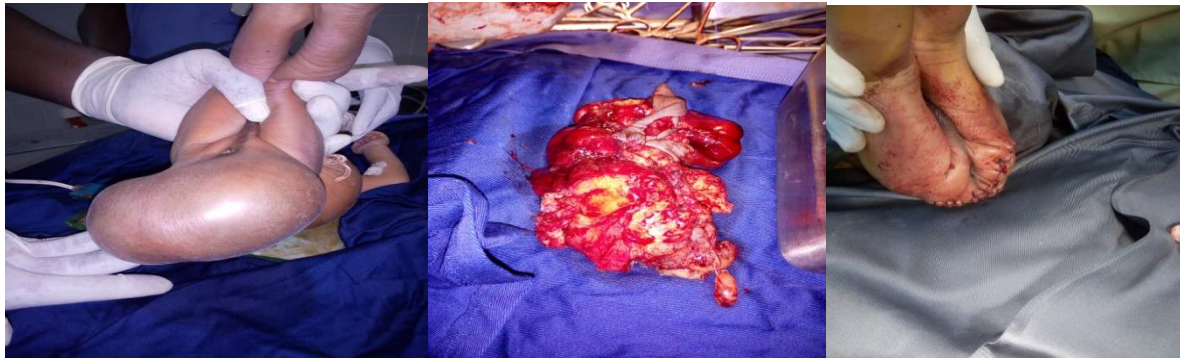


Figure 2: Nouveau ne de 02 jours



Figure 3: Nouveau ne de 03 jours

CONCLUSION

The sacrococcygeal teratoma is a rare tumor in Kayes, the antenatal diagnosis of which makes it possible to take measures for better postnatal care. The evolution depends on the precocity of the surgery.

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