

Newborn's giant sacrococcygeal teratoma

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Rezumat

Teratom sacrococcygian gigant la nou nascut

O tumoră sacrococcygiană a fost detectată la examenul ecografic în săptămâna a 25-a de sarcină. La dorința părinților fetița s-a născut pe cale naturală. Prezenta o tumoră sacrococcygiană de 12 cm diametru cu o bază de implantare largă și creștere posteroinferioară, ce disloca rectul și zona perineală. S-a operat în prima zi de viață și s-a îndepărtat o tumoră de 600 gr împreună cu cocxisul, obținând o bună reparație anatomică a regiunii, fără tulburări funcționale postoperatorii. Evoluția postoperatorie este favorabilă, cu exțerare în ziua a 14-a. Examenul histopatologic a confirmat benignitatea tumorii. Evoluția ulterioară a fost favorabilă.

Cuvinte cheie: nou născut, teratom sacrococcygian, depistare ecografică prenatală, malignitate, tratament chirurgical

Abstract

A sacrococcygeal tumor was detect at ultrasound maternal exam in 25TH week of pregnancy. The girl was born full term by natural way by the parents' choise. The newborn present a tumor with 12 cm diameter, situated in sacrococcygeal region, with a large base of implantation and with posteroinferior growth. This tumor produced a dislocation of the rectum and a perineal area. In the first day of baby's life, we perform the operation. We removed a large tumor (600 gr) with the coccyx

bone and we obtained a good repair of anatomy of the region, without postoperative functional troubles. Postoperative evolution was good. The newborn lived hospital healed in the 14th day. The histopatologic exam confirmed that the tumor was benign. Later evolution was good.

Key words: new born, sacrococcygeal teratoma, prenatal ultrasound detection, malignancy, surgical treatment

Introduction

Sacrococcygeal teratoma (SCT) is a neoplasm composed of a wide diversity of tissues from all three germ cell layers foreign to the anatomic site in which it arises. It often occurs near the coccyx, where the greatest concentration of primitive cells exist for the longest period of time. SCT are the most common type of germ cell tumors diagnosed in neonates, infants and children younger than 4 years. SCT occurs often in girls than in boys (ratio 3:1).

The most prenatal presentation of SCT is uterus size greater than dates (9). SCTs found during routine exams tend to be small and partly or entirely external. The internal SCTs are not easily seen via ultrasound, unless they are large enough to reveal their presence by the abnormal position of the fetal urinary bladder and other organs, but large fetal SCTs frequently produce maternal complication witch necessitate non-routine, investigative ultrasounds. Complication of the mass effect of a teratoma may include hip dysplasia, bowel obstruction, imperforated anus, urinary obstruction, hydronephrosis (7). Later complications of the mass effect and/or the surgery include neurogenic bladder, other forms of urinary incontinence, fecal incontinence and

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others chronic problems resulting from accidental damage or sacrifice of nerves and muscles within the pelvis (6).

Neonatal tumors present at birth protruding from the sacral site and are usually mature or immature teratomas. At birth, the usual presentation is a visible mass under the skin at the top of the buttox crease. A small tumor if is entirely inside the body may not present for years, until it grows large enough to cause pain, constipation and other symptoms of a large mass inside the pelvis or until it begins to extend out of the pelvis. Even a relatively large tumors may be missed if is internal, because the bony pelvis conceals and protects it.

The SCTs are classified according to their location: Type I: tumors predominantly with only minimal presacral involvement. Type II: tumors presenting externally but with a significant intrapelvic extension. Type III: tumors apparent externally but with predominant pelvic mass and extending into abdomen. Type IV: tumors are presacral with no external presentation (4).

Diferential diagnosis include: mielomeningoceles, lipomas, hydromelia, intracanalicular epidermoid tumors (5), retrorectal hamartomas, neuroblastomas, ependimomas, (1) ependimomblastomas (11).

Prior to the advent of prenatal ultrasound detection and hence scheduled Cesarion section, 90% of babies diagnosed with SCT were born full term (8). Management of SCTS involves watchfull waiting prior to any treatment. If tumors are over 5-10 cm, perform Cesarean section. If the tumors are under 5-10 cm, may be delivery vaginaly (1).

Case report

The case is a female newborn, 2700 gr; the third child of family. The diagnosis was establish in the 25th gestation weeks by ultrasound maternal exam. At clinic exam we founded: sacrococccigeal tumor, round, with a large implantation area, 12 cm diameter, 41 cm circumference. The tumor displaced the rectum to right and produce an important region deformity. The



Figure 1. Preoperator aspect

development of the tumor was to the buttock area. We finded the superior pole of the tumor by rectal exam. Ultrasound exam of tumor revealed the round transonic masses well shaped, mixed with high ecogenity less shaped masses. Xray exam revealed the sacrococccigeal tumor like an well shaped and homogeneous opacity and the pelvis'bones are not affected. Other exam (thoracic radiography, urography, irigography) revealed no modification. We established the diagnosis: SCT and decide to operate in emergency. Only the surgical treatment offers the heal. The risc of this operation is big, because of breathly operation and the little age of pacient. We performed a general anesthesia with intubation.

The aim of operation was to remove entirely tumor with the coccyus.

The position of the pacient was ventral decubitus with pelvis lightly elevated and thighs apart.

We incised in" horseshoe" above the tumor and dissected with identification of the vessels and nerves. The tumor was removed with the coccyus bone. After suture of muscles anal levators and gluteals we obtained an good aesthetic result. There are not incidences or postoperative complications (no urinary or rectal disfunctions). The baby leave the clinic heald, in the 14th day of her life. She was watch for three years, for recurrence risk. In this period they are no problems. Histopatologic exam reveal no malignancy, so prognostic is good.

Discutions

Teratomas are embrionary tumors with a complex histologic structure derived from embrionary sheets: endoderma, mesoderma and ectoderma. The histopatologic variety is very large. When tumors contents lowly differentiated cells, their malignancy are high. Sex ratio is female/male: 3/1. SCTs are benign in 80%, and malignant in 20%. Delay of surgical treatment increase the risk of malignancy at 50% in the 3rd year of life. Also the majority of these tumors are histologically



Figure 2. Postoperator aspect

benign, they are associated with significant morbidity and mortality due to secondary effects at the sacrococcygeal teratoma: prematurity of the infant, dystocia and traumatic delivery, exanguination from hemorrhage into the tumor. The prognosis for cure is generally good after a successful complete removal of benign sacrococcygeal teratoma (12).

Conclusions

A big SCT was successfully cured because:

- maternal ultrasound exam allowed an early diagnosis;
- it was possible to remove the entire tumor;
- histological structure are benign;
- no complication occurs in evolution.

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