Scientific Research Publishing

Surgical Science, 2019, 10, 44-48
http://www.scirp.org/journal/ss
ISSN Online: 2157-9415
ISSN Print: 2157-9407

Congenital Cervical Teratoma

Fatogoma Issa Koné[1*], Amal Hajjij[2], Naouma Cissé[1], Siaka Soumaoro[1], Abdoul Wahabhaidara[1], Samba Karim Timbo[1], Mohamed Amadou Keita[1]

[1]Department of Head and Neck Surgery, Gabriel Touré University Hospital, Bamako, Mali
[2]Department of Head and Neck Surgery, University of Health Sciences (UM6SS), International University Hospital Mohamed VI, Casablanca, Morocco
Email: *konefatogomaissa@yahoo.fr

How to cite this paper: Koné, F.I., Hajjij, A., Cissé, N., Soumaoro, S., Wahabhaidara, A., Timbo, S.K. and Keita, M.A. (2019) Congenital Cervical Teratoma. *Surgical Science*, **10**, 44-48.
https://doi.org/10.4236/ss.2019.101006

Received: April 26, 2018
Accepted: January 25, 2019
Published: January 28, 2019

Copyright © 2019 by author(s) and Scientific Research Publishing Inc.
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
http://creativecommons.org/licenses/by/4.0/
Open Access

Abstract

Introduction: The word "Teratoma" derives from the Greek word "teratos" including the meaning show. Teratoid tumors derived from the transformation of multipotent germ cells. They are composed of ectodermal, endodermic and mesodermal tissues in variable proportions; hence the term "embryonic tumor". **Objectives:** We are reporting the case of a mature teratoma discovered in a young child whose delivery was vaginally performed. Through this case we put in diagnostic and therapeutic highlight and we made a literature review. **Case report:** Patient 17 months admitted for the anterior compartment mass associated with inspiratory dyspnea. No anomaly/abnormality was detected during the follow-up of the pregnancy. The Patient with dyspnea grade 2 was admitted according to Chevaleir-Jackson classification. No abnormalities of stature ponderal developments were noted. Surgery of excision was our therapeutic alternative. Through the pathological examination a mature teratoma was found. **Conclusion:** Teratoma is a rare condition. Proper management of mature teratoma helps to prevent recurrence.

Keywords

Mature Teratoma, Congenital, Neck, Surgery

1. Introduction

Teratoma derives from the Greek word teratos meaning show [1]. Teratomas are malformed tumors derived from the transformation of multipotent germ cells. They are composed of ectodermal, endodermic and mesodermal tissues in variable proportions; hence the term "embryonic tumor" [2]. It is a rare tumor that represents 1/40,000 of births. Sacrococcygeal localization is the most common. The cervical lesion is rare and represents 1% to 5% [3]. This pathology is responsi-

ble for distress by compression of neighboring organs [3]. It can be life-threatening for the patient. The antenatal discovery is necessary; they can change the mode of delivery of the low way to the caesarean section following their volume [2].

We report the case of a mature teratoma discovered in a young child whose delivery was vaginally tract performed. Through this case we discussed the diagnosis and theraputic aspect and review the literature.

2. Case Report

This is a 17-month-old patient admitted for a mass of the anterior compartment of the neck at birth. The mass was apyretic and painless. Inspiratory dyspnea was the only sign found in the patient. The dyspnea was permanent and accentuated in supine decubitus. The dysphonia was not noted during the examination. No anomaly/abnormality was detected during the follow-up of the pregnancy and delivery. The patients with dyspnea grade 2 were admitted according to Chevaleir-Jackson classification. No abnormalities of staturoponderal development were noted. The mass was hard, mobile, irregular, 7 cm in diameter, and the covering skin was healthy. Computed tomography scan has found a heterogeneous mass with presence of calcifications (**Figure 1**). The therapeutic decision was surgical. The patient underwent general anesthesia with orotracheal intubation. We made a basicervical incision of Kocher type. The dissection allowed to expose a mass of whitish appearance was under the hypodermic plane. Through a cleavage clan we performed the excision of the mass which measured about 7 cm (**Figure 2**). No hematoma was noted. The exit was allowed after three days postoperatively. The outcome was good. The anatomopathological examination found a teratoma mature (**Figure 3**) composed of squamous epithelium and cartilage. We did not record recidivism after one year. The patient's parents had given their consent for the case reports to be published.

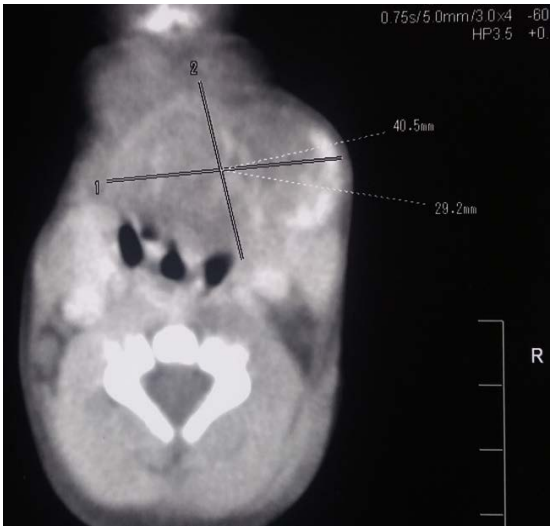

Figure 1. Computed tomography scan has found a heterogeneous mass with presence of calcifications.

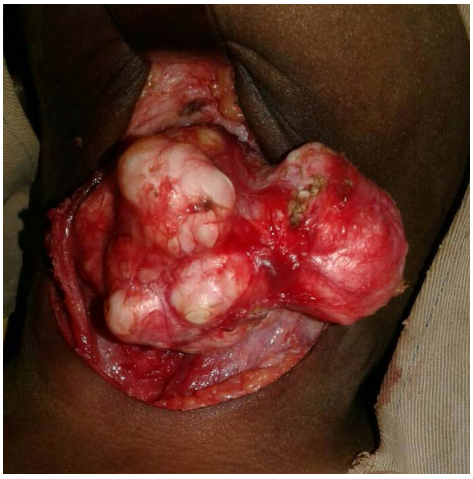

Figure 2. Exposure of cervical mass during cervicotomy.

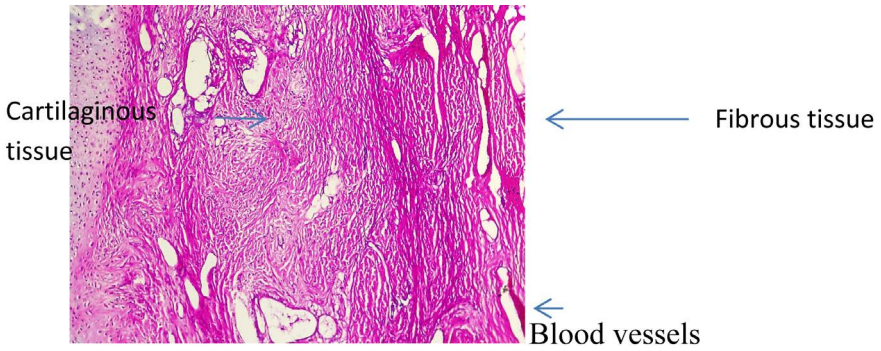

Figure 3. (HE × 400) mature teratoma with proliferation of cartilage tissue, fibrous tissue and regular blood vessels.

3. Discussion

The etiology of teratoma is not well understood [1]. The multifactorial etiology is composite of the chromosomal abnormalities and the abnormalities of embryonic development [1]. The chromosomal abnormalities are constituted of the trisomy 13, ring X-chromosome, gonosomal pentasomy 49, and gene mutations. The embryonic factors are derived from three leaves: endoblastic, mesoblastic and ectoblastic [4] [5]. Histogically teratoma is classified as mature and immature. The teratoma mature is benign and represents 95% of caes [4]. The teratoma was mature in our case.

The diagnosis of teratoma can be made according to two "modes": antenatal and postnatal. The most frequent post-natal diagnosis as in our case is suspected in front of a cervical mass of neonatal discovery. The clinical spectrum is a function of size and seat of this mass [5]. When it is bulky, it is responsible for the obstruction of respiratory tracts, found in 80% to 100% of cases [1]. It often follows a per partum mortality after delivery due to this obstruction [1]. The finding of respiratory dyspnea in our case "is" probably related to compression of respiratory tracts at the cervical level. This finding is shared by the authors [1] [3]. This respiratory dyspnea is life-threatening for the patient and the severity of

head and neck teratomas. However ultrasound, CT scan and MRI can provide key elements for diagnosis. Cervical ultrasound and CT scan puts tent highlight cystic or heterogeneous mass with calcifications and a solid and liquid component [1]. MRI exploration leaves margin for error, but it allows a fine study of the different tissue components, lesion limits and a possible mass effect on cervicomediastinal structures [3] [6]. The CT scan allows a fine study of the extension towards the aero digestive tract, to construct the report with the vascular jugulo-carotidian axis and to release a surgical strategy [1] [3] [6]. Computed tomography enabled our study to direct us towards the diagnosis by its evoked characteristics. As for diagnostic antenatal, ultrasound plays a major role in the second term of pregnancy in highlighting a hydramnios and the presence of a mass with calcifications [6]. MRI supports ultrasound by assessing the degree of compression of the upper respiratory tracts [1]. The interest of antenatal diagnosis is to prepare the care of the newborn, to decide the mode of delivery and to prevent a possible rupture of the tumor [2]. The main antenatal risk is respiratory with delayed normal growth of the fetus responsible for hypotrophy and prematurity [2] [3]. In our patient no antenatal diagnosis has been proved (recorded). The diagnosis was made after birth as in the case of Moncef [1]. The certainty diagnosis of teratoma is carried out by anatomopathological examination which makes it possible to define a mature and immature teratoma [3]. In our case it allowed to objectify a mature teratoma. It makes the differential diagnosis of teratoma with the metastases of a thyroid carcinoma, lymphangioma and with the bronchogenic cyst [1]. The management of giant teratoma is based on two concepts Exit (ex-utero intra partum technique) or OOPS (operation placenta support). Some authors opt for a caesarean from 36 SA [3]. The Exit alternative requires the externalization of the fetus to perform an intubation or tracheotomy. The clamping of the cord is a function of the freedom of respiratory tracts. The other OOPS concept is to examine the airways of newborns on the operating table. Surgery for excision of teratoma takes place only after stabilization of the general state. Surgery is most often easy in both cases there is a cleavage plan. We opted for total surgical excision to avoid recurrence. This therapeutic principle is mentioned by the authors [1] [2] [3]. The outcome was simple in our case. No case of recurrence was noted in our patient. The Post-surgery complications such as recurrence or metastasis in immature teratomas have been suggested by author [3]. The absence of recurrence in our case is related on the one hand to the total excision and the mature type. The mature type has a reputation for being minor. Tumor markers such as alpha-fetoprotein and bHCG (b human chorionic gonadotropin) when they are abnormal, asserts the presence of a secreting malignant component in the teratoma [3]. Our patient did not receive any of these doses as in the Ksia series [3].

4. Conclusion

Cervical teratoma is a rare condition. Early diagnosis ensures a good prognosis.

The care is surgical and must obey a total excision of the mass to prevent recurrence.

Conflicts of Interest

The authors do not declare any conflict of interest. The patient's parents had given their consent for the case reports to be published.

References

[1] Sellami, M., Mnejja, M. and Ayadi, L. (2015) Congenital Teratoma of the Neck: A Case Report and Literature Review. *Egyptian Journal of Ear, Nose, Throat and Allied Sciences*, **16**, 101-104. https://doi.org/10.1016/j.ejenta.2014.10.004

[2] Rami, M. and Mahmoudi, A. and Elmadi, A. (2012) Le Teratome Cervical: A Propos de 2 Cas. *Pan African Medical Journal*, **12**, 91.

[3] Ksia, A., Mosbahia, S. and Zrig, A. (2013) Teratome cervical chez l'enfant [Cervical Teratoma in a Child]. *Archives de Pédiatrie*, **20**, 1133-1138. https://doi.org/10.1016/j.arcped.2013.07.008

[4] Alimehmeti, M., Alimehmeti, R. and Ikonomi, M. (2013) Cysticbenign Teratoma of the Neck in Adult. *World Journal of Clinical Cases*, **1**, 202-204. https://doi.org/10.12998/wjcc.v1.i6.202

[5] EL Korbi, A., Harrathi, K. and Bouattay, R. (2014) Teratome mature de la parotide: A propos d'une observation. *Journal Tunisien d'ORL et de Chirurgie Cervico-Faciale*, **31**, 67-68.

[6] Belaloui, M.O., Boughaba, N., Atrih, Z. and Boussouf, M.S. (2012) Tératome Cervical Congenital. *Lettre d'Otorhinolaryngologie et de Chirurgie Cervico-Faciale*, **328**, 30-31.