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Case Report

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JUVENILE GIANT FIBROADENOMA: A CASE REPPORT

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ABSTRACT

Fibroadenoma is the most common benign breast disease (68%) in adolescence (Boisserie-Lacroix 2010). The fibroadenoma is, most often, a simple monitoring and only a large size (> 3 cm) or a modification of the lesion will suggest surgical excision. Giant fibroadenoma is a particular and rare form of fibroadenoma, characterized by an often very large lesion (> 5 cm) with rapid growth, the removal of which alone makes it possible to differentiate it from a phyllodes tumor. The pathophysiology of fibroadenomas remains poorly understood. A better knowledge of the latter and, in particular, of hormonal influences would allow better initial and subsequent management. To our knowledge, there are no published case series that have analyzed the different hormonal parameters in the case of giant fibroadenomas.

KEYWORDS: Fibroadenoma, Adolescence, Benign Giant Tumor, Breast.

INTRODUCTION

A fibroadenoma is a benign tumor made up of a stroma and glandular epithelial cells. It represents 10% of cases of benign tumors in the female population,[1] and 75% of cases of breast lesions in young girls during puberty.[2,3] Giant mammary fibroadenoma is a fibroadenoma larger than five centimeters in diameter and / or weighing more than 500 grams.[2-4] In its so-called juvenile form, fibroadenoma occurs during the puberty period, usually after the onset of the first period. The target population is the very young girl whose age is between 10 and 18 years.[5] The authors report a case of juvenile giant mammary fibroadenoma in a 17-year-old pubescent girl. lumpectomy associated with immediate breast reconstruction corrected the asymmetry with good aesthetic and functional results.

OBSERVATION

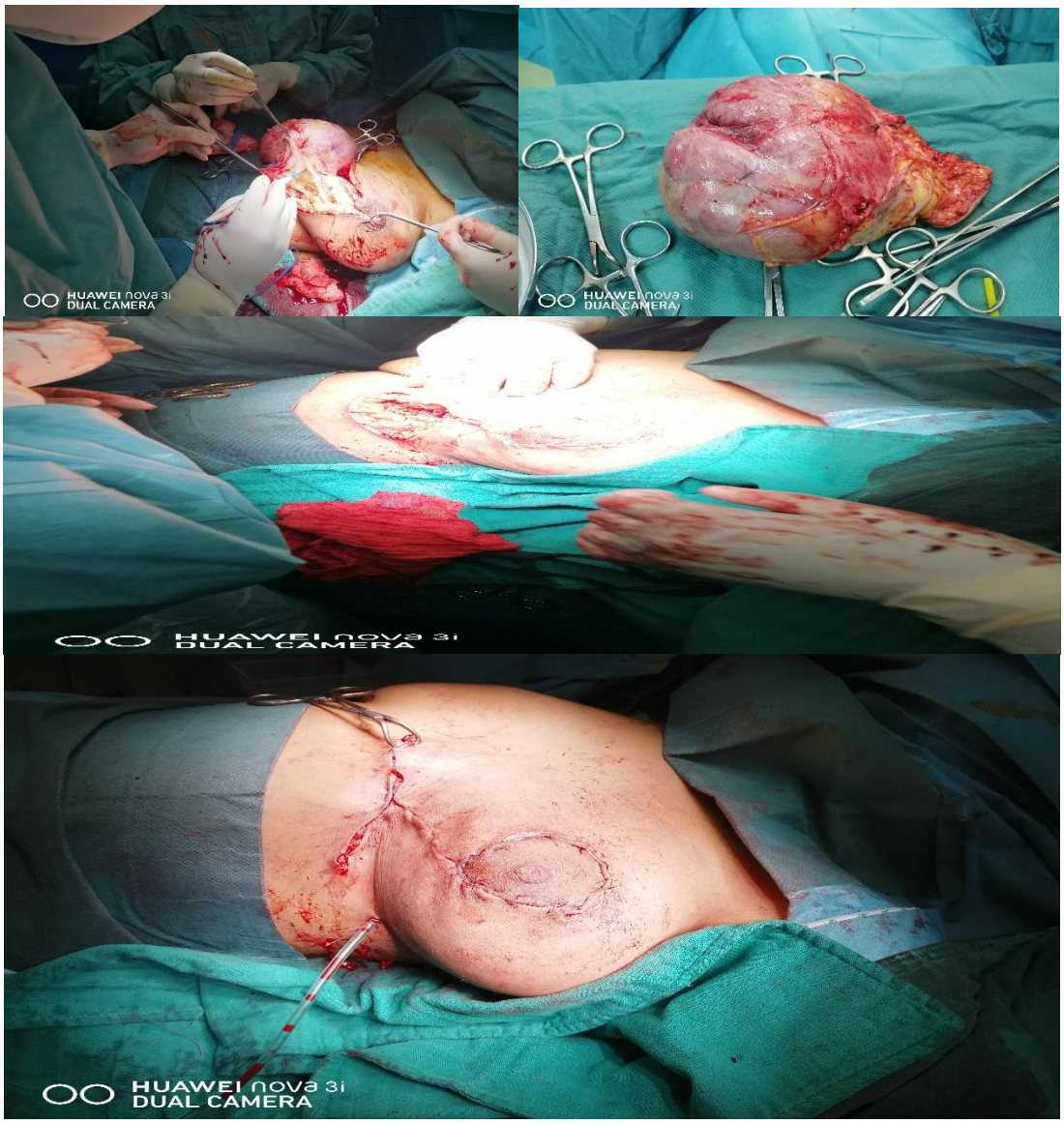
A 17-year-old teenager consulted in July 2020 in a gyneco-mammary center (national institute of oncology in Rabat) for the management of a large unilateral left breast. She was experiencing normal puberty. Over the days, she noticed a rapid increase in the size of the left breast. There was no notion of contraception, nor of a familial breast tumor in her history. interrogation also found no notion of breast trauma, or hyperthermia with breast engorgement. On clinical examination, asymmetry was noted, associating unilateral breast enlargement palpation revealed a rounded mass, firm, regular, painful, mobile in relation to the two planes. the mammary gland was not individualizable. This mass was about fifteen centimeters in diameter. the ptosis was evident. the skin was tight, shiny with stretch marks in places, with no notion of breast discharge. the areolomamelon plaque was without abnormality. There was no intertrigo in the infra-mammary fold. the search for axillary and supraclavicular lymphadenopathy was unsuccessful. the right breast was unremarkable, and contained no lump on palpation. the other secondary sex characteristics were present. the general condition was very preserved.

the breast ultrasound performed had shown a large tissue mass which occupied the 2 lower quadrants and extending to retroareolar, oval shaped, isoechoic tissue echostructure, containing a few hyperechoic spans, with mixed vascularization, minimal, measuring approximately 105 * 116*61mm ➔ evoking a juvenile fibroadenoma but a phyllodes tumor cannot be eliminated classified BIRADS4A

Histological examination of the fineneedle aspiration product was in favor of a juvenile fibroadenoma given the patient's age.

The patient underwent lumpectomy with oncoplasty. the approach first involved a lower periareolar hemicirconferential incision with a vertical incision at segment III. This pathway facilitated the enucleation of this encapsulated tumor. breast reconstruction and correction of asymmetry were performed using the upper

pedicle technique, resulting in a periareolar scar and an inverted T scar.



Figures lumpectomy of the left breast with a tumor of about 15cm long axis with oncoplasty.

A suction drain was put on and removed on postoperative day 12. Pathological examination of the operative specimen showed a massive tumor, well encapsulated, homogeneous and pearly white when cut, site of a juvenile giant fibroadenoma. There was no histologic sign of malignancy. the operative consequences were simple. No pain or necrosis of the areolomamelon plaque was observed, symmetry was maintained.

DISCUSSION

Fifty percent of breast changes are physiological during adolescence according to Boissière-lacroix and Boutet.[6] For these authors, the benign breast lesions of the young girl represent only 4.5% of cases. Everything suggests that the other 50% are pathological. To what could we therefore attribute the other 46.5% of cases of breast lesions? malignant breast lesions represent 0.9% of cases6. In fact, primary malignant tumors of the adolescent breast are rare.[7] For these authors, when breast cancer is diagnosed at this age, it is in the majority of cases of secondary tumors, metastases of certain cancers such as sarcoma, rhabdomyosarcoma, lymphoma, non-Hodgkin's lymphoma, leukemia and neuroblastoma. The differential diagnosis to be feared is phyllodes tumor, especially since the youngest age currently reported in the literature is 10 years.[6] Phyllodes tumor is rare in adolescence. It represents 1% of cases of breast masses at this age.[7] The racial predisposition for phyllodes tumor is not accepted in the literature.[4] According to its authors, only 5 to 10% of phyllodes tumors are malignant, especially in adults. The diagnosis of phyllodes tumor is histological, by its conjunctive component which is predominant therein. All the authors.[1,5,8] agree in recognizing the

fibroadenoma as the main benign tumor of the adolescent breast.

Its association with breast cancer is rare but possible. This association has been reported by Devi et al.1, especially in its fibrocystic form. the family history of breast cancer was not found in our case. the presence of a family history of breast cancer has been reported by some authors.[1,8] Indeed, the genetic predisposition of breast cancer is present in 6 to 10% of cases according to Rochefort and Rouesse9, which bodes well for its hereditary nature. the genes involved are called BRCA1 / 2. However, BRCA1 and BRCA2 mutations are only found in about 20% of cases. For these authors, the lifetime risk of a woman with a mutation of developing breast cancer is respectively 60% for the BRCA1 gene and 40% for the BRCA2 gene. This genetic predisposition is real but not exclusive, especially since only 2% of malignant breast tumors are found in adolescents.[8,10] Since the work of Chauvet et al.[5] we know that juvenile fibroadenoma does not increase the risk of breast cancer. According to Uygur and Yigitler,[3] 95% of cases of breast tumors discovered before the fourth decade of life in a woman are benign. The association of mammary fibroadenoma with genetic abnormalities is common, notably Turner syndrome described by Calcaterra et al.[11]

During puberty, 75% of breast lesions are fibroadenomas.[2,3] For these authors, only 0.5 to 2% of these fibroadenomas are classified as giant mammary fibroadenomas. juvenile forms only represent 4% of cases.[8,10] Clinically, the fibroadenoma is most often unilateral. the tumor is solitary, painless, mobile, characterized by its rapid growth. It can simulate a unilateral form of juvenile breast hypertrophy. According to Grolleau et al.,[12] these virginal hypertrophies represent 6% of cases of morphological abnormalities in the adolescent breast. bilateral forms of juvenile fibroadenoma have been described in the literature.[2,10] They represent 15% of breast fibroadenoma cases,[2] the bilateral form can be confused with a juvenile mammary hypertrophy, especially in its bilateral form. Fibroadenoma remains a rare tumor in Caucasian women.[13] Its incidence in the black, African American and Eastern race appears to be higher in the literature,[2,4,13] which is consistent with the case reported here. fibroadenoma is always associated with ptosis, the greater the hypertrophy linked to the size of the tumor. Its real cause is currently unknown.

The most accepted etiopathogenesis appears to be relative hyperestrogenism and / or estrogen receptor abnormality,[3,4] this is the common feature between a juvenile fibroadenoma and a virginal hypertrophy. In our case, the etiology retained is hyperestrogenia related to precocious puberty, which agrees with the data in the literature.

The treatment of juvenile fibroadenoma is conservative given the benign appearance of the tumor. the often significant psychological damage, associated with the functional and aesthetic repercussions of this benign tumor, requires not only excisional surgery, but also and above all the plastic reconstruction of the diseased breast (s); which could improve this pathological state and give a comfort of life to these teenagers who wear them. reconstruction is conditioned by the size of the fibroadenoma and the degree of ptosis that results from it. All of the classic techniques of breast reduction surgery, including the upper pedicle, lower pedicle and areolar graft, are applicable to adolescents each, with their drawbacks and advantages. Uygur and Yigitler,[3] performed an areolar transplant with its major risk on breastfeeding. Some authors,[10] have been forced to perform mastectomy for giant juvenile fibroadenoma, followed by prosthetic reconstruction. We performed the upper pedicle technique with a satisfactory aesthetic result. the difficulty of obtaining symmetry in one step, especially in unilateral forms, sometimes leads to mastopexy of the non-diseased breast, to subsequently correct the postoperative residual asymmetry. We did not experience it, the symmetry was maintained in our case. The fibroadenoma can recur after surgical excision, which is the benefit of prolonged monitoring. Tumor recurrence has been described in the literature.[2,10,11]

CONCLUSION

Juvenile mammary fibroadenoma is a major morphological abnormality of the breasts. the benign nature of juvenile fibroadenoma makes it necessary to combine lumpectomy with a plastic correction of these anomalies whenever the circumstances require, given the sometimes significant psychological damage. It certainly gives the teenage girl who wears them a comfortable life. As recurrence is frequent after surgical excision, regular and prolonged postoperative monitoring is essential**.**

CONFLICTS OF INTEREST: No.

REFERENCES

1. Devi P.M., Singh L. R., Gatphoh E.D. Fibroadednoma with squamous metaplasia. Singapore Méd. J., 2007; 48(7): 682-683.
2. Morris A., Shaffer K. Recurrent bilateral giant fibradenom- as of the breasts. Radiolog. Case Reports, 2007; 2(3): 1-5.
3. Uygur F., Yigitler C. Rare juvenile giant fibradenoma. J. Breast health, 2009; 5(3): 164-166.
4. Hawary M. B., Cardoso E., Mahmud S., Hassanain J. Giant breast tumors. Ann. Saud. Med, 1999; 19(2): 174-176.
5. Chauvet M. P., Jafari M., Lambaudie E., Giard S. Tumeurs bénignes et mastopathies complexes. Point de vue du chirurgien. 28es journées de la SFSPM, Lille, novembre, 2006; 355-360.
6. Boisserie-Lacroix M., Boutet G. Sein de l'enfant et de l'adolescente. EMC-Radiologie. Imagerie

Médicale.: Génito-urinaire Gynéco obstétricale Mammaire [34-835- A-10] Doi:10.1016/S1241-8218(09)51673-3.
7. Schaffer V. J., Coniglio D. A worrisome increasingly painful breast masse in an adolescent female. J. A. A.P. A., 2008; 21(8): 30-35.
8. Stehr K. G., Lebeau A., Stehr M., Grantzow R. Fibroad- enoma of the breast in an 11-year-old girl. Eur. J. Pediatr Surg., 2004 ; 14(1): 56-59. Doi:10.1055/s-2004-815782.
9. Rochefort H., Rouesse J. Cancers du sein, incidence et prévention. Bull. Acad. Nat. Méd., 2008; 192(1): 161-180.
10. Mukhopadhyay M., Patra R., Mondal S., Ghosh S., Ray A. Bilateral giant juvenile fibroadenoma of breasts. J. Indian Assoc. Pediatr. Surg, 2009; 14(2): 68-69.
11. Calcaterra V., Coscia D. R., Sgerell A., Burroni B., Po- detta M., Andorno A., Ferrari A., Larizza D. Recurrence of giant juvenile breast fibroadenoma in a girl with Turner's syndrome. J. Pediatr. Endocrinol. Metabol. 2009; 22(3): 281-3.
12. Grolleau J.L., Pienkowski C., Chavoin J.P., Costagliola M., Rochiccioli P. Anomalies morphologiques des seins de l'adolescente et leur correction chirurgicale. Arch. Ped, 1997; 4(12): 1182-1191.
13. Raganoonan C., Fairbaim J. K., Williams S., Hughes L. E.Giant breast tumors of adolescence. Aust. H. Z. J. Surg., 1987; 57(4): 243-7.