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(CASE REPORT)

Cystic lymphangioma of the breast

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Abstract

It usually presents as a painless, soft, and movable mass in the breast. We report the case of an 8- year-old girl admitted for breast cystic lymphangioma (BCL) progressively increasing in size. Medical treatment with hydrocortisone injection did not yield results, hence the decision to operate on the patient.

Keywords: Cystic Lymphangioma; Child; Hydrocortisone; Surgery**.**

1. Introduction

Cystic lymphangiomas, also known as cystic hygromas, are congenital malformations of the lymphatic system generally seen in children under 2 years of age (90%) and rarely in adults[1]Common locations include neck (70%), armpit (20%) and abdomen (10%).

Cystic lymphangiomas of the breast are extremely rare[2, 3]., and very few reports exist on their imaging appearance. They are asymptomatic and develop very slowly. We report one case.

2. Clinical observation

This is a 6-year-old child from a noninbred marriage with no prior history of trauma or previous surgery with infra-centimetric swelling since birth at the right breast gradually increasing in size which motivated the family to consult for care.

The clinical examination objectified a swelling of the right breast measuring approximately 8 cm by 8 cm taking the whole right breast with a soft consistency, painless, with bluish-eyed skin containing small papular oozing lesions and a small bleeding fistula without associated breast discharge or significant axillary lymphadenopathy (figure 1)

At the para-clinical exploration our patient benefited from a metabolic hormonal balance and a pelvic ultrasound all without abnormality, as well as a breast ultrasound having objectified a cystic lymphangioma of the breast with the presence of some galactocele ruptus.

Our patient received 3 hydrocortisone injections every 15 days. Due to the lack of improvement of the swelling surgery was considered. After a complete preoperative check-up and a pre-anesthetic visit the tumorectomy was scheduled.

The surgery carried out 2 days after his hospitalization allowed the complete removal of the tumor.(figure 2).In immediate post-operative the patient presented no complications and was declared outgoing at J+3.

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Anatomopathological analysis objectified a 6*5.5*1cm piece of tumorectomy with 2 nodular focal spots in favor of a revamped cystic lymphangioma.

The evolution was marked by a subcutaneous hematoma which quickly resorbed as a result of a compressive bandage. Currently the patient is in the 28th month post tumorectomy without signs of recurrence but keeps a nipple retraction a control CT was performed objectifying a thickening of the skin lining at the surgical site, without signs of recurrence or tumor residues.(figure 3)

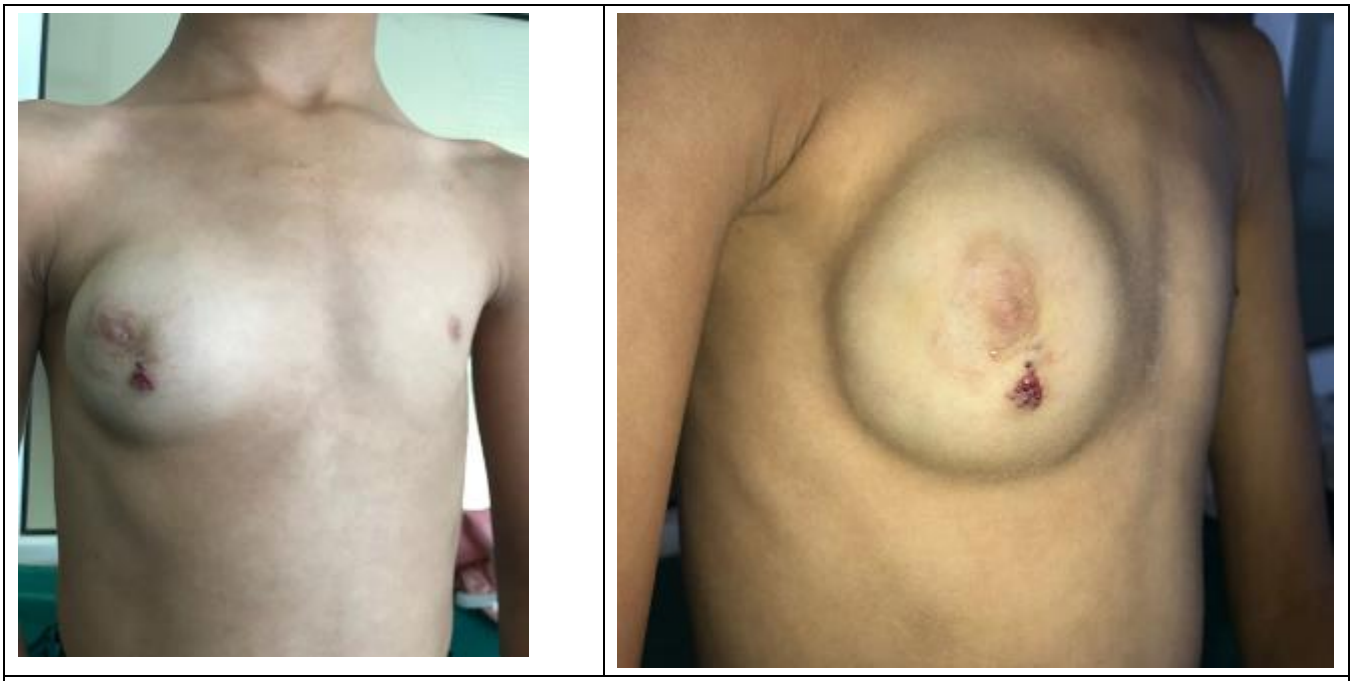

Figure 1 Preoperative clinical image

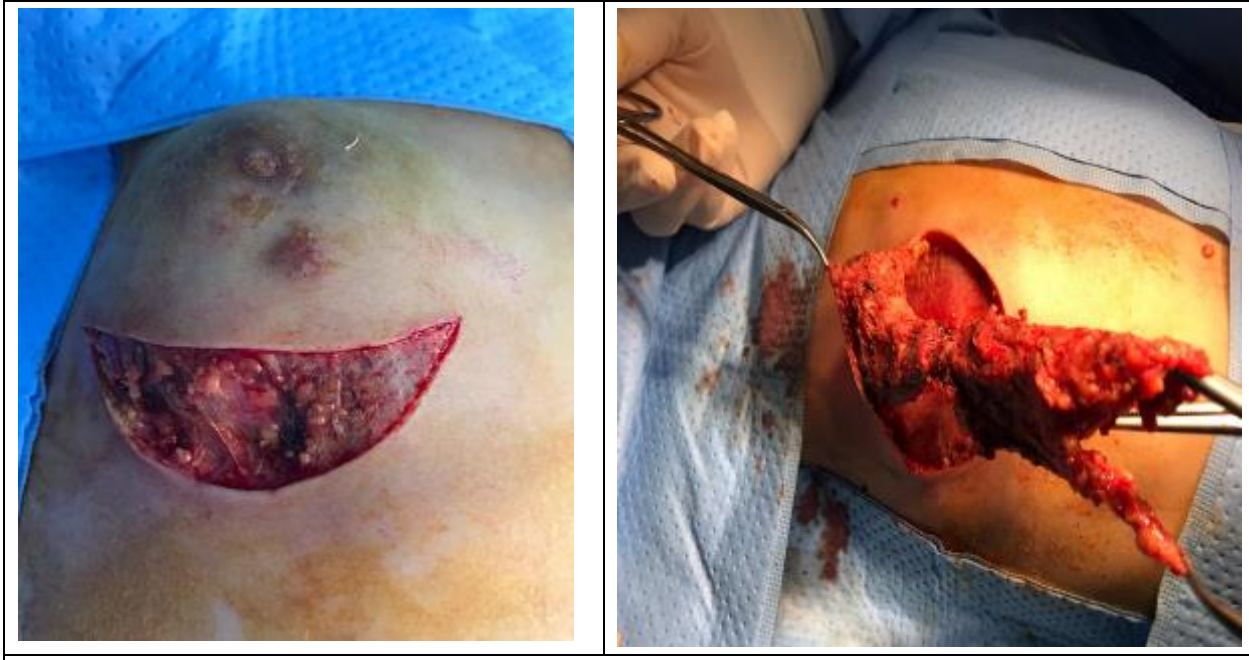

Figure 2 Intraoperative image

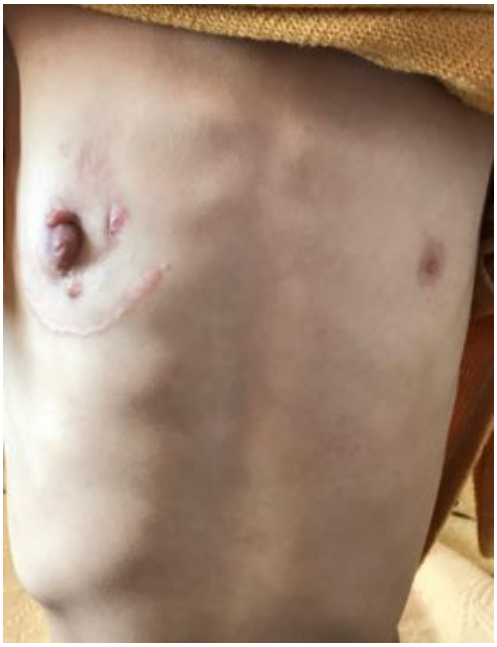

Figure 4 Postoperative image

3. Discussion

Cystic lymphangiomas are composed of well-defined cystic spaces lined with endothelial cells and filled with clear lymphatic fluid [4]. These result from sequestration of lymphatic sacs or spaces that fail to connect or communicate with the main central lymphatic channels [5][6] and occur along lymphatic drainage pathways. The breast is a very uncommon site for the appearance of the cystic subtype of lymphangiomas, with very few documented cases in the literature and is extremely rare in newborns [7]. Mammary lymphangiomas tend to occur in the upper outer quadrant of the breast [8], whereas in our case, it involved the entire breast. This pattern of localization may be related to the lymphatic drainage pattern in the breast, which is mainly towards the tail and axillary region [8,9]. Regarding the age distribution of cystic lymphangioma, it is generally reported in young women aged 4 months to 49 years. So far, only five cases [7,10,11] of breast cystic lymphangioma have been reported in the worldwide literature, with only one being a child, in our case, a 6-year-old child.

Lymphangiomas are most often benign, slow-growing lesions that do not transform into malignant tumors [12]. These tumors are frequently located in the head, neck, axilla, and intra-abdominal region [13]. Breast localization, as found in our patient, is exceptional. This aligns with the opinions of other authors [14,15,16,17]. They are usually asymptomatic and develop very slowly [15]. Pain and discomfort may be experienced as they increase in size, as was the case for our patient. Breast ultrasound was used to diagnose cystic lymphangioma of the breast [6]. Ultrasound shows these lesions to be cystic with multiple septations. The cyst contents are typically clear but may show low-level internal echoes representing internal hemorrhage or proteinaceous content. In our case, ultrasound was able to make the diagnosis by noting the presence of galactoceles, some of which were ruptured.

In histology, they are characterized by a single layer of endothelium containing, typically, a clear watery fluid (lymph). CLs are benign with no malignant potential, painless, soft, and fluctuant malformations that may or may not increase with coughing or crying and are brilliantly translucent if the content is clear (8). Complete surgical excision of the tumor represents the best treatment modality for this benign breast disease [14]. However, recurrence can be observed when the excision is incomplete [18]. In our case, after the failure of medical treatment, the treatment was surgical by excision of the tumor and we did not note any recurrence 28 months after the surgical intervention.

4. Conclusion

Cystic lymphangiomas are benign lesions, but deserve urgent attention due to the complication resulting in a sudden increase in size.

Rapid hypertrophy can occur as well as infection, bleeding or the formation of a fistula. Breast localization is exceptional.

The diagnosis is anatomopathological and the curative treatment consists of a complete surgical removal of the tumor.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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