wjpmr, 2022,8(6), 43-46

SJIF Impact Factor: 5.922

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

Case Study

ISSN 2455-3301

WJPMR

POST-TRAUMATIC BREAST HEMATOMA: A CASE REPORT

Zineb Bennani*, Houda Souradi, Meriem Kriouile, Mounia Yousfi, Samir Bargach

Souissi Maternity Hospital CHU Avicenne - Rabat – Morocco.

***Corresponding Author: Zineb Bennani**

Souissi Maternity Hospital CHU Avicenne - Rabat - Morocco.

Article Received on 30/03/2022 **Article Revised on 20/04/2022** **Article Accepted on 11/05/2022**

ABSTRACT

Breast hematomas are an accumulation of blood in the breast. Although these can occur spontaneously, particularly in patients with hematological diseases or bleeding disorders, most are due to trauma or medical intervention, especially after a breast biopsy or surgery. Generally, they resolve spontaneously, but may in some cases require surgery, especially in the case of a hemorrhagic, persistent or too large hematoma. We report the case of a patient who presented a post-traumatic breast hematoma and who required surgical drainage because of its persistence for one year.

KEYWORDS: Breast - Hematoma - Trauma - Drainage - Node.

INTRODUCTION

The true incidence of blunt breast trauma is unknown due to a paucity of relevant literature.

Breast hematoma is relatively uncommon, occurring in less than 2 % of blunt chest trauma in females. More than 93.5% are managed expectantly with only 6.5% requiring invasive procedures.[1,2] We report the case of a patient with a post-traumatic breast hematoma, which required surgical exploration because of its persistence for one year.

CASE REPORT

A 66-year-old patient was admitted to the outpatient department due to an increasing lump on the left breast. The patient reported having been the victim, the year before, of a traumatic fall with the impact point on the left breast, which led to swelling associated with homolateral mastodynia and for which the patient took analgesics (NSAIDs). The evolution was marked by the progressive increase in breast volume with accentuation of the pain which became disabling, and motivated the patient to consult. The patient has a 12-years long history of hypertension, for which she has been treated in the past with NATRIXAM 1.5/5 mg.

Clinically, the patient's hemodynamic status was stable, blood pressure at 14/8, pulse at 86 bpm and normocolored conjunctiva.

The breast examination shows breasts of asymmetrical size **(Figure1)**, at the expense of the left breast which is larger. The left breast is the site of a bruise, next to a mass taking the two outer quadrants of the breast, measuring 12 cm long axis, well-defined, painful and renitent on palpation and mobile in relation to the superficial and deep planes, associated to nipple retraction **(Figure 2)**. The right breast was normal, and no lymph nodes were palpated in the ganglionic areas on examination.

Figure 1: Breast asymmetry - Larger let breast

Figure 2: Mass in the two outer quadrants of the breast left, measuring 12 cm long axis, well limited - Nipple retraction

A breast ultrasound and **mammography** were performed **(Figures 3 et 4)**, showing at the junction of the upper quadrants a large hemorrhagic collection occupying the majority of the left breast, limited by a wall, with altered content and a large dense liquid component measuring 84 x 73 x 53cm. This training generates important posterior reinforcement. It is avascular on color Doppler. Presence at the level of the inferior-internal quadrant of the left breast, of a similar formation, measuring 28 x 22 cm. Given the clinical context and the radiological aspect, these 2 formations evoke reworked and largely liquefied hematomas for the largest.

Figure 3: ultrasound aspect of the mass in the left breast (hematoma).

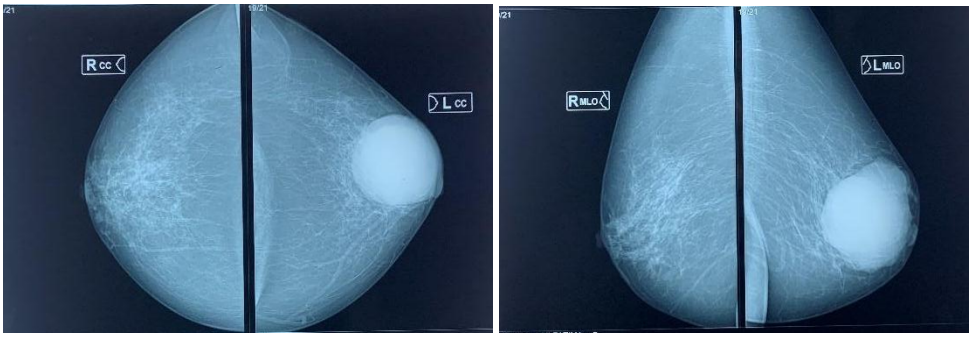

Figure 3: bilateral mammography showing the aspect of the left breast hematoma.

The right breast is the seat of a simple cyst of 4 mm long axis. Breasts ranked BIRADS 2 on the right and BIRADS 3 on the left.

A preoperative assessment was carried out, objectifying electrolytes within normal limits, hemoglobin Hb level at 13.6 g/dl, hematocrit Ht at 40.7 %, platelets at 406000/µL and prothrombin ratio PR at 100 %. Leukocyte count is maintained with WBCs at 6360/µL. The C-reactive protein is at 4.5 mg/L and CA 15-3 at 11 U/mL.

It was decided to surgically explore the left chest wall with drainage of the hematoma.

Open surgical drainage of the hematoma was performed: a left periareolar incision of approximately 3 cm was made and the tissues were dissected down to the subcutaneous layer. A large hematoma was evacuated, with ablation of the devitalized shell surrounding the hematoma, while respecting the nipple-areolar plate. Abundant washing with 9% saline was performed. The residual cavity was padded with Vicryl 0 and Vicryl 1 and hemostasis was ensured. The subcutaneous tissue was sutured with single inverted stitches and the skin with an overlock with Vicryl 2.0. **(Figure 5)**

Figure 5: Surgical aspect of the hematoma shell.

The postoperative course was uneventful and a rapid and complete resolution of the clinical symptoms was observed.

DISCUSSION

Definition

Breast hematoma is the result of a hematic extravasation that diffusely infiltrates the mammary parenchyma and tends to form a focal collection. Although it is not cancerous, it could possibly be alarming, as it may be

painful or tender, or feel like a breast lump. A breast hematoma can happen to anyone regardless of age or menopausal status.

Etiologies[3]

Breast hematoma may be caused by:

- Trauma such as a sports injury, car accident, or fall
- Medical procedures, like a breast biopsy or breast surgery (Breast implant surgery, lumpectomy or mastectomy)
- Rarely after a hemopathy

Diagnostic[4]

Functional signs

The associated signs that generally lead patients to consult are:

- Breast pain
- Changes in the skin over the breast, such as thickening, peeling, itching, or redness
- Bleeding or discharge from the nipple
- Signs of infection, such as fever, redness, and warmth of the breast
- Swelling of the breast

Additional tests

The diagnosis of hematoma may require breast imaging, and sometimes even a biopsy.

A small hematoma is rarely visible on a **mammogram**. However, if the hematoma is large enough to be seen, it usually appears as a well-defined oval mass, with sometimes skin thickness.

On mammography, the hematoma appears as an asymmetric density associated with cutaneous thickness, or less frequently, as a nodular image with circumscribed margins. Sometimes the peripheral edema around the hematoma partially defines the lesion margins.

Hematomas may have suspicious-looking characteristics due to scarring or the effect of the hematoma on the breast tissue.

At advanced stages, some hematomas may calcify, but these calcifications are large, unlike the microcalcifications which raise suspicion of cancer.

Ultrasound is mainly used in an early stage, demonstrating a very defined anechoic cyst.

It can also be useful for monitoring regression, where the association of cystic and solid compounds can be observed.

In some cases, a **biopsy** can be performed, mainly in case of diagnostic doubt.

Differential diagnosis

The most important differential diagnosis of breast hematoma is with carcinoma, whose mammographic appearance of asymmetric density and skin thickness may be similar.

Other differential diagnoses can be considered, such as a hemorrhagic intracystic tumor, or spontaneous bleeding from an occult breast tumor in patients presenting coagulation disorders.

Evolution[5,6]

Spontaneous resorption is possible, radiological monitoring is then necessary at 4 - 6 weeks until there is only a small focal distortion; and must be maintained until complete regression of the hematoma. The residual area can sometimes present a focal distortion of the parenchyma and then require a biopsy.

A biopsy is also necessary in case of non-resorption of the hematoma, with persistence of a high-density mass on mammographic control related to an organized hematoma.

Treatment[7]

Small breast hematomas can regress spontaneously and do not require any specific treatment. The body absorbs the blood from the bruise and it will eventually go away on its own. A heating pad or compress can help speed up the process.

Larger breast hematomas may require surgical drainage.

CONCLUSION

The diagnosis of hematoma should be considered in the presence of any mammary nodule of sudden appearance in a recent traumatic context.

In patients with hemopathy or who are on anticoagulant treatment, breast hematoma should be considered in the differential diagnosis of breast nodules, even in the absence of a traumatic history.

Spontaneous resorption is possible, but as in the case described, exploration with surgical drainage of the hematoma may be necessary.

REFERENCES

1. Sanders C, Cipolla J, Stehly C, et al. Blunt breast trauma: is there a standard of care? Am Surg, 2011; 77(8): 1066–9.
2. Dahabreh IJ, Wieland LS, Adam GP, et al. Core Needle and Open Surgical Biopsy for Diagnosis of Breast Lesions: An Update to the 2009 Report [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US), 2014.
3. Alison L. Chetlen, et al. Hematoma Formation During Breast Core Needle Biopsy in Women Taking Antithrombotic Therapy, American Journal of Roentgenology, 2013; 201:1, 215-222.
4. Evans A, Trimboli RM et al. Breast ultrasound: recommendations for information to women and

referring physicians by the European Society of Breast Imaging Insights Imaging, Aug, 2018; 9(4): 449-461
5. edithsanford.org Breast Hematoma.
6. Breastcancer.org. Capsular contracture, October29, 2020.
7. Kanegusuku S, RodriguesD, UrbanLA, et al. Recurrent spontaneous breast hematoma: report of a case and review of the literature Rev Hosp Clin Fac Med Sao Paulo, 2001; 56(6): 179-82.