

Nipple Leiomyoma

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A thirty-one-year-old female presented with a painful left nipple swelling. On examination, a tender, swelling arising from the nipple measuring 1 cm X 1 cm was found. The lesion was completely excised. Histopathological examination confirmed the diagnosis of nipple leiomyoma.

Bahrain Med Bull 2018; 40(2): 124 - 125

Leiomyoma is defined as a benign smooth muscles tumor most commonly arises in the uterus, small bowel, and esophagus and rarely arises in the breast³. Due to the high content of smooth muscle cells in the subareolar region, breast leiomyomas commonly arise from that region^{1,2,7}.

There are two different types of breast leiomyoma: parenchymal and superficial⁴. Parenchymal breast leiomyomas arise from deep breast tissues, while superficial breast leiomyomas arise from the skin and subcutaneous tissue originating from the nipple and areola smooth muscles⁴. Nipple leiomyoma could be seen in both males and middle-aged females arising from single or both breasts⁵.

The aim of this case presentation is to report a rare nipple leiomyoma and the different lines of management.

THE CASE

A thirty-one-year-old female with no known medical illnesses presented with painful left nipple swelling, not associated with nipple discharge or skin changes. The patient has no family history of breast cancer or similar conditions. No history of using contraceptive pills or hormonal therapy. She had three children and used to breast feed them all.

On examination, a swelling arising from the left nipple was seen, tender on palpation, with no discharge or skin ulceration and no palpable breast masses or axillary lymph nodes. Bilateral breasts ultrasound was performed and showed bilateral fibrofatty breast parenchyma.

The patient underwent excision of the left nipple lesion. The cross-section of the lesion showed interlacing bundles of spindle cells with eosinophilic cytoplasm and blunt-ended nuclei arranged in circumscribed fashion just below epidermal lining of the skin of the breast, with no atypia, mitosis and necrosis, see figure 1. Spindle cells were immunoreactive with SMA which was consistent with leiomyoma of the nipple, see figure 2.

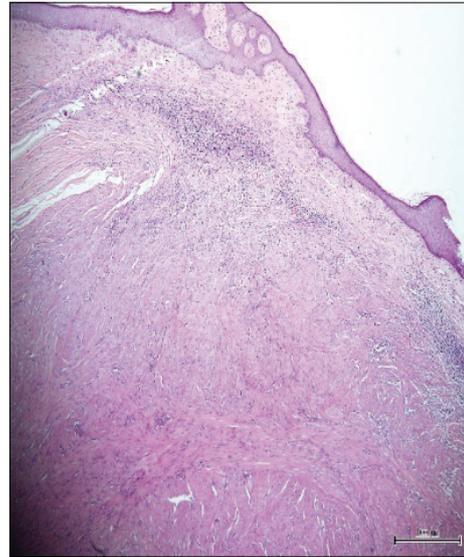


Figure 1: Eosinophilic Cytoplasm with Interlacing Smooth Muscles Bundles

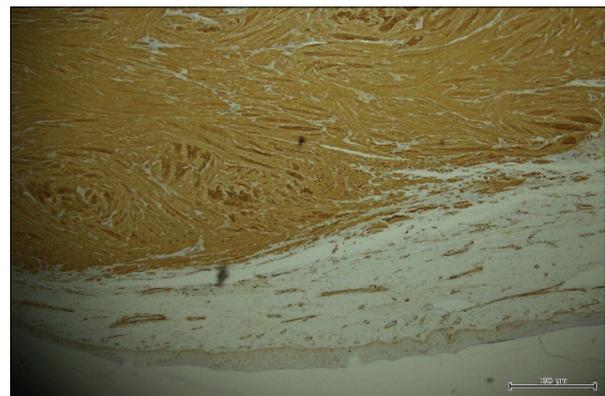


Figure 2: Positive SMA for Spindle Cells

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Postoperatively, the patient was followed-up in the clinic, and she was doing well. The pain had disappeared, and no recurrence during the follow-up period of 3 months.

DISCUSSION

Although leiomyoma of the uterus and gastrointestinal tract are common neoplasms, they rarely arise from the breast and nipple^{3,4,7}. In addition, breast and nipple leiomyomas are considered one of the rarest benign non-epithelial neoplasms¹.

Leiomyomas can present as a single or multiple lesions, such as in a genetically inherited autosomal dominant disorder known as Reed's syndrome, in which the patient have multiple cutaneous and uterine leiomyomas⁸.

Breast leiomyoma can affect both genders with a male: female ratio of 1:3, mostly affecting the right breast^{4,5,7,8}. In our case, the left nipple was involved. The majority of the reported cases present with a palpable breast mass, discomfort and pain usually seen in middle-aged females, as in our case^{2,5,6,9}. Breast leiomyoma mostly originates from the subareolar space due to the high content of smooth muscle cells^{3,7}.

Leiomyomas of the breast resemble those originating from other parts of the body in their histopathological features by the presence of spindle-shaped cells arranged in groups of interlacing bundles with eosinophilic cytoplasm containing blunt ended nuclei^{3,7}.

Differential diagnoses include fibroadenoma and leiomyosarcoma. Furthermore, histologic examination and immunohistochemistry are the standard to diagnose such a condition^{1,2}. The definitive treatment of leiomyoma of the breast is complete excision of the lesion with free margins as it carries high recurrence rate reaching up to 50%^{5,9}.

CONCLUSION

Nipple and breast leiomyomas are extremely rare neoplasms. Careful history, physical examination and histopathological diagnosis are essential for the proper management. Complete excision of the lesion with free margins is the mainstay of treatment due to high recurrence rate.

Author Contribution: All authors share equal effort contribution towards (1) substantial contributions to conception and design, acquisition, analysis and interpretation of data; (2) drafting the article and revising it critically for important intellectual content; and (3) final approval of the manuscript version to be published. Yes.

Potential Conflicts of Interest: None.

Competing Interest: None.

Sponsorship: None.

Acceptance Date: 4 April 2018.

Ethical Approval: Approved by the Research and Ethics Committee, King Hamad University Hospital, Bahrain.

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