

## 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.**

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Leiomyoma is defined as a benign smooth muscles tumor most commonly arises in the uterus, small bowel, and esophagus and rarely arises in the breast<sup>3</sup>. Due to the high content of smooth muscle cells in the subareolar region, breast leiomyomas commonly arise from that region<sup>1,2,7</sup>.

There are two different types of breast leiomyoma: parenchymal and superficial<sup>4</sup>. 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 muscles<sup>4</sup>. Nipple leiomyoma could be seen in both males and middle-aged females arising from single or both breasts<sup>5</sup>.

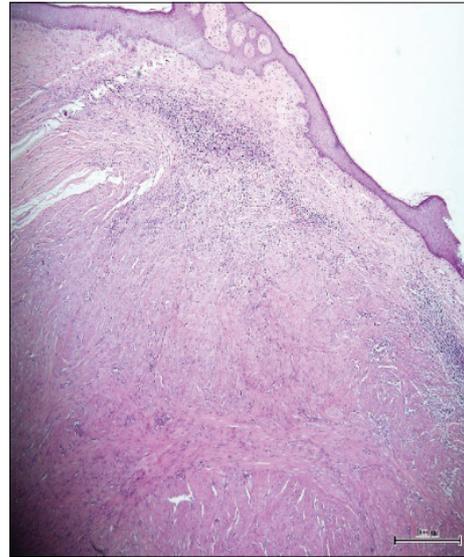
The aim of this case presentation is to report a rare nipple leiomyoma and the different lines of management.

### THE CASE

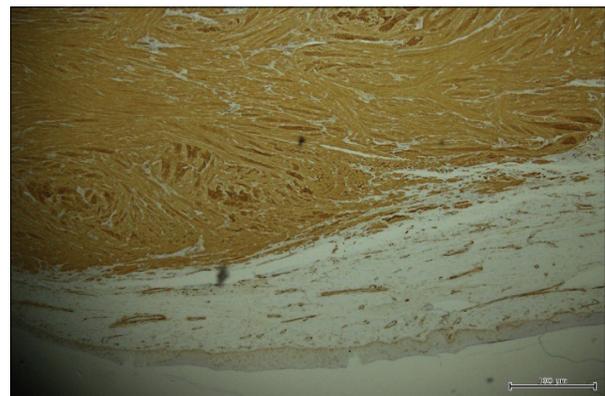
A thirty-one-year-old female with no known medical illnesses presented with painful left nipple swelling, not associated with nipple discharge or skin changes. The patient has no family history of breast cancer or similar conditions. No history of using contraceptive pills or hormonal therapy. She had 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<sup>3,4,7</sup>. In addition, breast and nipple leiomyomas are considered one of the rarest benign non-epithelial neoplasms<sup>1</sup>.

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 leiomyomas<sup>8</sup>.

Breast leiomyoma can affect both genders with a male: female ratio of 1:3, mostly affecting the right breast<sup>4,5,7,8</sup>. 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<sup>2,5,6,9</sup>. Breast leiomyoma mostly originates from the subareolar space due to the high content of smooth muscle cells<sup>3,7</sup>.

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<sup>3,7</sup>.

Differential diagnoses include fibroadenoma and leiomyosarcoma. Furthermore, histologic examination and immunohistochemistry are the standard to diagnose such a condition<sup>1,2</sup>. 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%<sup>5,9</sup>.

## 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.**

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## REFERENCES

1. Shah SD, Gupta A, Roy S, et al. Intraparenchymal Leiomyoma of the Breast: A Case Report. *Indian J Surg* 2013; 75(suppl 1): S88-S89.
2. Ende L, Mercado C, Axelrod D, et al. Intraparenchymal Leiomyoma of the Breast: A Case Report and Review of the Literature. *Ann Clin Lab Sci* 2007; 37(3):268-73.
3. Yalta T, Bekar E, Balaban F. Leiomyoma of the Breast: A Case Report. *Dicle Medical Journal* 2012; 39(2): 283-285.
4. SR Mohan, Laxminarayana B, Venishetty H, et al. Leiomyoma Breast - A Rare Case Report. *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)* 2015; 14(9):32-35.
5. Masamatti SS, Manjunath HR, Babu BD. Leiomyoma of Nipple: A Rare Case Report and Review of Literature. *Int J Sci Stud* 2015; 3(6):210-213.
6. Granic M, Stefanovic-Radovic M, Zdravkovic D, et al. Intraparenchymal Leiomyoma of the Breast. *Arch Iran Med* 2015; 18(9): 608-612.
7. Koirala K, Shrestha ML, Chalise PR, et al. Leiomyoma of Breast: A Report of Rare Case. *Nepal Med Coll J* 2008; 10(3):207-8.
8. Deveci U, Kapakli MS, Altintoprak F, et al. Bilateral Nipple Leiomyoma. *Case Rep Surg.* 2013; 2013: 475215.
9. Pavlidis L, Vakirlis E, Spyropoulou GA, et al. A 35-Year-Old Woman Presenting with an Unusual Post-Traumatic Leiomyoma of the Nipple: A Case Report. *J Med Case Rep* 2013; 7:49.