Chronic Lactiferous Fistula: A Case Report

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ABSTRACT

Lactiferous or milk fistula is a tract between the skin and lactiferous duct. Chronic lactiferous duct is uncommon and generally formed during lactating period. It commonly result from complication of the surgical intervention, such as excision biopsy of breast mass or incision and drainage (I&D) for breast abscess. We reported a case of chronic lactiferous fistula secondary to previous I&D for breast abscess in 31 year old lactating woman.

Keywords: lactiferous fistula, lactiferous duct, fistula, fistulectomy

INTRODUCTION

Lactiferous or mammillary fistula, also known as milk fistula, happens where a fistulous connection develops between the skin and the lactiferous ducts.[1] It is uncommon complication of surgical intervention involving lactating patient. The risk of milk fistula formation after drainage of a breast abscess or after the excisional biopsy of breast lump during lactation is well known.

CASE REPORT

A 31-year old breastfeeding mother presented to surgical clinic with complaint of milk discharge from the opening at previous incision and drainage (I&D) wound at inferior circumareolar region of right breast. No associated fever or bloody discharge is found. After further questioning, the patient, had history of incision and drainage (I&D) for right breast abscess two years ago. Few days after drainage of the abscess, she developed milk leak from the incision site and wound dehiscence. She was treated with oral broad-spectrum antibiotics. However, the wound was never healed and the milk was continuously leaking from the incision site.

On examination, there was a small opening at previous I&D wound, at inferior circumareolar region of right breast which milk was seen exuding. There was no palpable breast lump or axillary lymph node enlargement. Ultrasonography of right breast showed the mammary duct adjacent to the site of milk leak is dilated. Besides, no collection or mass seen. Right breast fistulogram (Figure 1) followed by galactogram (Figure 2) were performed and confirmed there is a fistulous communication between the lactiferous duct and the skin. She planned for duct excision by fistulectomy, after completion of breastfeeding, for her second child.

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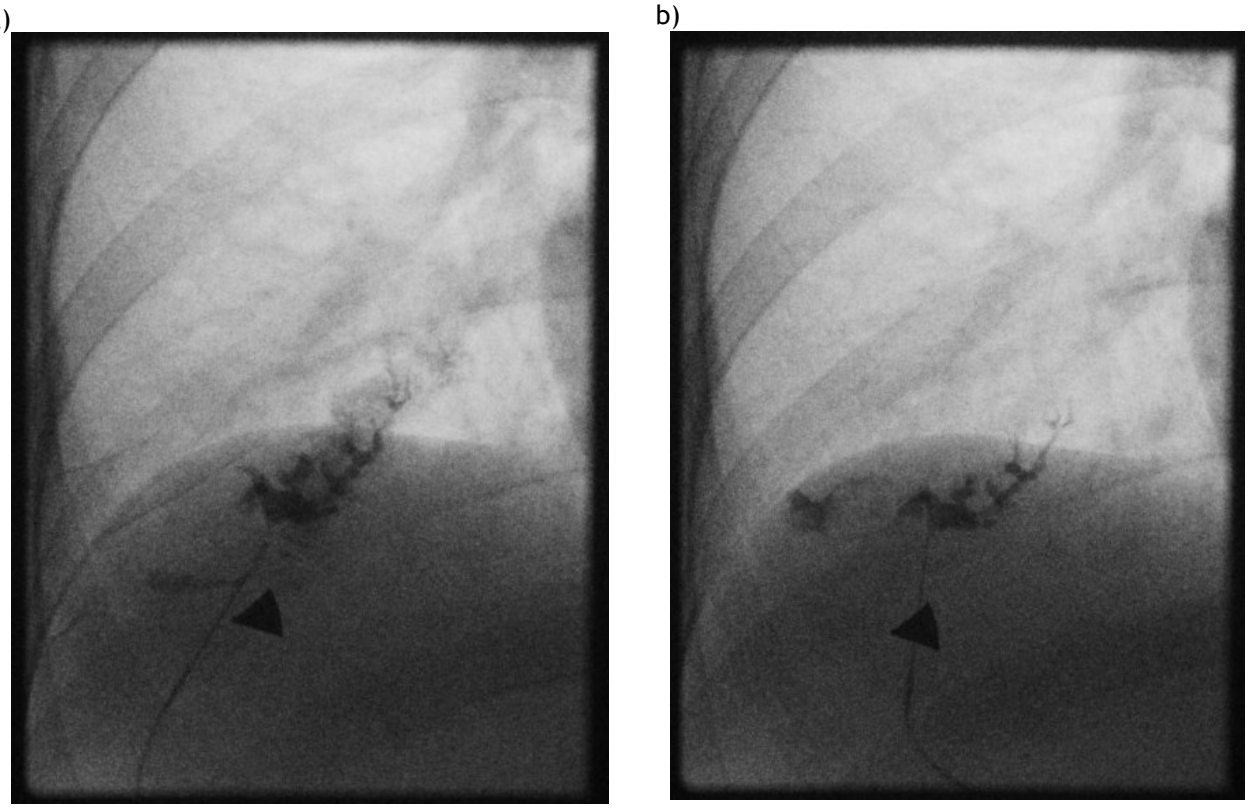

Figure 1: Breast fistulogram (a) and (b) shows contrast opacified the lactiferous ducts. *Head arrow* is lead marker placed at inferior circumareolar of right breast.

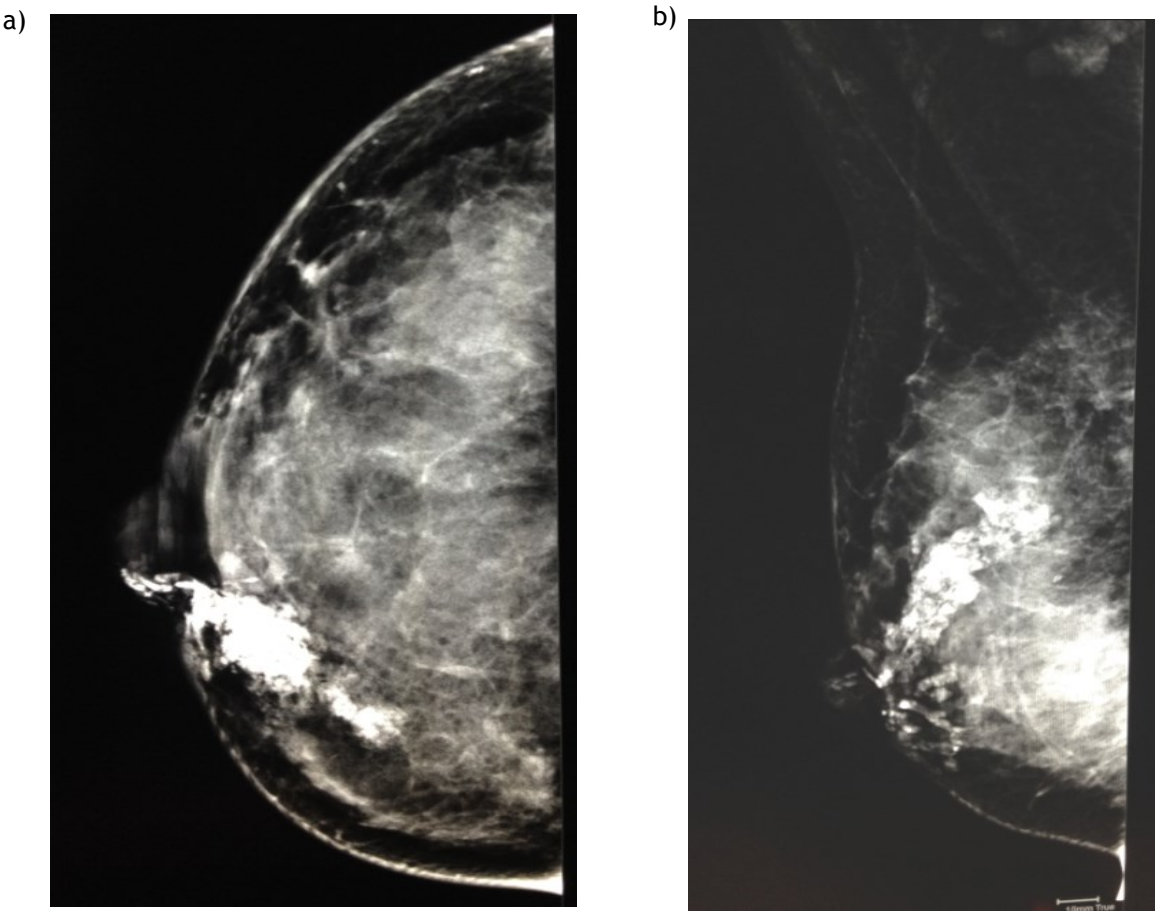

Figure 2: Galactograms in (a) Craniocaudal and (b) Mediolateral oblique views post galactogram demonstrates communication between the skin and lactiferous ducts mainly in the upper inner quadrant of right breast.

DISCUSSION

A milk or lactiferous fistula is a tract between the skin and lactiferous duct. Lactiferous fistula is a rare entity; therefore, no study was done on the incidence of lactiferous fistula. It is commonly resulting from complication of the surgical intervention such as excision biopsy of breast mass or incision and drainage (I&D) for breast abscess. Various hypotheses regarding the pathogenesis of lactiferous fistula were described and one of it was that lactiferous fistula forms due to the obstruction of the duct.[1,2,3,4] Lactiferous fistula can disrupts patient's daily activity and increases physician workload in terms of the requirement for intensive wound care.[5]

Lactiferous fistulas are usually located directly adjacent to the site of a previous surgery or intervention. In term of location, peripheral lesions have a much lower risk as compared to deep and centrally located lesions.[5]

Needle biopsies such as fine needle aspiration and core biopsy can be done in lactating women but with precaution to minimize unnecessary damage to the lactiferous ducts. The risk of complex fistula forms increases if the larger needle is used. Thus, the smallest needle should be used and radial elliptical incisions are recommended.[6] The breast should be kept well drained with nursing and pumping before and after the procedure.

A true fistula should be differentiated from the superficial fistula secondary to sub-epidermal glands infection.[7] The diagnosis of lactiferous fistula is mainly clinical and supporting by few special radiological imaging such as breast sonography, fistulogram/galactogram and mammogram. As in our patient she had undergone breast sonography, fistulogram followed by galactogram.

The only reliable way of stopping a milk leak is to suppress lactation, but sometimes it can dry up spontaneously while lactation continues. Lactation can be suppressed with breast binding and withholding sucking stimuli. In some cases medical treatment with antibiotic and D2 agonist is considered adequate and appropriate. Oral antibiotics were used to prevent infection.[8]

Surgically lactiferous fistulas were treated by duct excision either with primary closure or by fistulectomy, and then healed spontaneously with intensive wound care. Simple fistulas were treated by total duct excision; however, half of the fistulas recurred. Total duct excision is restricted to more severe cases, such as complex fistulas and periductal mastitis.[1] Excision of the involved duct and fistula alone, or excision of the fistula combined with total duct excision performed with antibiotic cover, is the treatment of choice for milk /lactiferous duct fistula.

CONCLUSION

Although lactiferous fistula is an uncommon condition, it can cause prolonged morbidity as illustrated in this case. Thus, it should be managed adequately and appropriately to avoid significant morbidity to patients.

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