CASE REPORT

LACTIFEROUS FISTULA IN THE AXILLARY BREAST

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ABSTRACT

Lactiferous fistulae are uncommon post inflammatory conditions usually occurring around the areola of nipple. A young nursing mother presented with milk discharge from the site of a previous infection in left anterior axillary discharge whenever baby suckled.Ultrasound of right breast and axilla showed a fistulous track coursing between skin and a lactiferous duct in the axillary tail of breast. Due to the nursing state, local care was advised deferring surgery to post lactation period. The fistula remained quiescent after the nursing period ended. Follow up ultrasound and examination 18 months later showed complete healing.

Key words: Breast, Lactiferous fistula, Axilla.

INTRODUCTION

A lactiferous or mammary duct fistula is an uncommon entity first described by Hertz in 1952.[1,2] Common causes include post -abscess rupture and discharge to surface, mammary duct ectasia, periductal mastitis, granulomatous mastitis, nipple abnormalities, post-operative infection with a strong relationship with heavy smoking.[2-4] Majority occur around the areola of nipple.[2, 3] Axillary tail is an uncommon place.

This case report describes a young lady who developed a milk-discharging fistula located in the axillary tail of breast which 'erupted' only during active nursing.

CASE REPORT

A 30 years old lactating lady presented with history of milk discharge from the right anterior axillary fold. She was mother of three children presently nursing the youngest aged eight months. Two years ago when her second child, aged one year at that time, was getting weaned off the breast feed, she developed a painful swelling in front of the right axilla which turned red, tender and then exuded pussy discharge over a period of one week. When the condition did not respond to oral medication, a general surgeon drained it by giving an incision under local anesthesia. Antibiotics were then given according to the culture report and the lesion healed with minimal scarring and a small depression of overlying skin. No mass or tenderness remained.

During the third trimester of the last pregnancy, she noticed a focal swelling with a tense feeling under the scar. After the delivery as she nursed the child, the swelling increased in size, became painful and from the 2nd post-natal week onwards, there was milk discharge from the site every time the baby suckled. The pain and size of the swelling abated but the condition was uncomfortable for the lady. So she consulted her gynecologist. There was no co morbidity, smoking history or any other remarkable feature in the personal, menstrual or family history.

On local examination, there was a small punctum around pin-head size, in the line of a thin irregular scar near the anterior axillary fold. It was not tender to touch, was wet-looking but not inflamed or excoriated. Glandular tissue of similar texture as breast was palpable underneath. No other abnormality was noted on local or general physical examination. Lymph nodes were not palpable.

Due to the nursing state, she was subjected to high frequency ultrasound of right breast and axilla as first line investigation. Probe was covered with sterile glove and sterile gel was used for imaging the discharge site. Ultrasound showed a hypo echoic track of 1.37 cm length and 5 mm width which was leading to a dilated (3 mm) lactiferous duct in the axillary tail of breast. It was filled with fluid as well as echogenic material. As soon as she started to feed the baby, the duct dilated (to 4.5 mm) and clear milky fluid exuded from the opening (figure 1). This confirmed the

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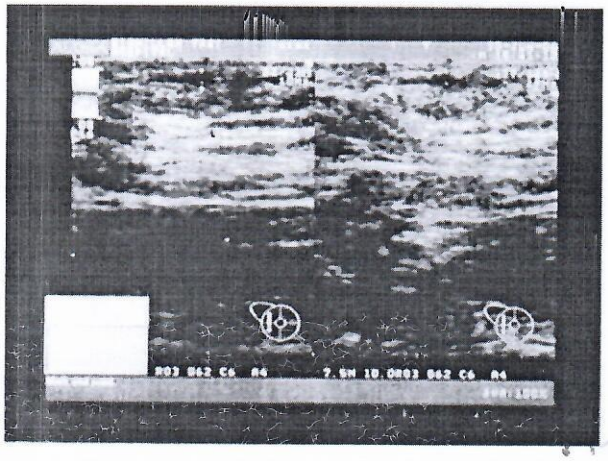

Figure 1: High frequency ultrasound of the axilla showing the fistula tract.

clinical diagnosis of lactiferous or mammillary duct fistula. The rest of the right breast, the left breast and the axilla were normal. As the lady was lactating, galactogram/ fistulogram was not performed. Surgery was deferred till the nursing period would get over. She was advised local care with alcohol swabs three times a day, salcosaryl ™ application twice a day between longer gaps of nursing to promote epithelialization, and use of pressure with nursing pads at the fistula site during active nursing. She was also instructed about the symptoms and signs of possible infection with advice to report back should this occur.

She returned after 19 months in January 2008 seeking permanent contraception. The discharge had ceased about a year ago as the child was weaned off the breast feed. Local examination did not show the previous punctum; the overlying skin had healed leaving a tiny scar. Complimentary ultrasound with high frequency probe also did not show the previously visualized tract indicating complete healing.

DISCUSSION

Lactiferous or mammillary duct fistula is an uncommon condition. Nipple abnormalities, long standing infection with coagulase-negative Staphylococci, age (median of 32 years), smoking habit, previous biopsies, Hadfeild procedure for duct ectasia, periductal mastitis etc. are the usual associated factors that predispose to this complication.[3,4] It has also been described in male breast following senescent gynecomastia,[5] and in an infant following incision of infantile breast swelling.[6] A true fistula should be differentiated from superficial fistula resulting from an infection of sub-epidermal gland(s). The usual histology is periductal mastitis and duct ectasia although idiopathic granulomatous mastitis and tuberculous mastitis are also described.[3]

The condition usually presents as sub-areolar abscess or peri-areolar discharging sinus.[7] The present case had an unusual location in this regard.

For management purpose, these fistulas are divided into a simple and a complex type.[1] Over half of the simple fistulae can be managed medically.[8]

Burdred et al. described a series of 40 fistulae.[9] Only two were associated with lactation state and both healed spontaneously without resorting to surgery as in this case. Surgical procedures range from total duct excision (recommended for complex fistula),[4] and fistulectomy with saucerization.[3] About 23 % recur particularly if there is post-operatively infection.[4] Maier et al. recommend demonstrating and removing/un-roofing the sinus tract for prevention of recurrence.[10]

The presently described case had the preceding history of surgical drainage of an inflammatory mass (which could have been an infected galactocoele) in the axillary tail. However none of the other described associated factors were there. The self remission and closure with local care alone also corresponds with the observations of Bundred et al. [9]

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