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Postoperative Milk Fistula Treated with Cabergoline

Kabergolinle Tedavi Edilen Postoperatif Süt Fistülü

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Abstract
A milk fistula is a tract between a lactiferous duct and the skin, and usually results from a surgical operation. Several hypotheses have been proposed to explain the pathologic process. We herein report a case of a 23-year-old breastfeeding mother who has consulted us for the evaluation of her mastalgia. Breast ultrasonography confirmed the presence of a 21- × 15-mm lobulated lesion with an irregular contour. A milk fistula developed on the 3rd postoperative day. Intensive wound care and administration of broad-spectrum antibiotics were then performed. Medical management of the fistula involved treatment with oral cabergoline, which was begun at 0.5 mg twice per week. Two weeks after the operation, the wound was totally clear of any drainage and subsequently healed spontaneously. However, milk fistula is an uncommon complication. Milk fistulas are usually treated with primary closure or heal by spontaneous granulation. Oral antibiotics are usually administered. In our case, cabergoline treatment with intensive wound care was effective without the need for primary closure.
Key Words: Milk fistula, cabergoline

Özet
Süt fistülü, laktiferöz bir kanal ile cilt arasında genellikle cerrahi sonrası oluşan bir yoldur. Oluşum sürecini açıklayan çeşitli hipotezler ortaya atılmıştır.23 yaşında emziren bir anne kliniğimize mastalji şikayeti ile başvurdu. Yapılan muayenede saptanan palpabl kitlenin ultrasonografisi 21x15 mm'lik lobüle irregüler sınırlı malign şüphesi taşıyan kitleyi ortaya koydu. Eksizyonel biyopsi sonrası 3. Günde süt fistülü gelişti. Yara pansumanı ve geniş spektrumlu antibiyotik başlandı. Süt fistülüne yönelik kabergolin 0,5 mg tablet haftada iki kez oral yolla uygulandı. Postoperatif ikinci haftada drenaj tamamen kesildi ve yara spontan olarak iyileşti.
Süt fistülü her ne kadar yaygın olmasa da,can sıkıcı bir komplikasyondur.Fistüller,primer sütürasyon veya spontan granülasyonla iyileşir. Sıklıkla oral antibiyotikler kullanılır. Vakamızda kabergolin hassas yara bakımı tedavisi ile birlikte etkili olmuştur,fistül primer sütürasyona gerek kalmadan spontan granülasyonla iyileşmiştir
Anahtar Kelimeler: Süt fistülü, tedavi, kabergolin

Introduction

Milk fistula, also known as mammillary fistula, was first reported by Atkins.[1] A milk fistula is a tract between a lactiferous duct and the skin. It is acquired during lactation, and is usually associated with a surgical operation. This entity was reported about 4 years earlier by Zuska et al. in 1951.

Milk fistulas are located directly adjacent to the site of a previous surgery.[2] Although their etiology is unknown, several hypotheses have been proposed to explain the process. Atkins hypothesized that milk fistula develops due to the obstruction of the duct secondary to nipple inversion.[2]

Case Report

A 23-year-old breastfeeding mother consulted us for the evaluation of her mastalgia. On physical examination, there was a palpable, 2-cm solid mass on the right breast located in the lower lateral quadrant 4 cm away from the

areola. Breast ultrasonography confirmed the presence of a 21- × 15-mm lobulated lesion with an irregular contour containing millimetric calcifications on the right breast, located in the lower lateral quadrant 4 cm from the areola. These findings raised suspicion of a malignancy. Therefore, Tru-Cut biopsy was planned, but due to technical problems, an operation under local anesthesia was performed. The patient, who had a 7-month-old baby, was requested to stop breastfeeding 2 weeks before biopsies were performed. Excisional biopsies were then carried out, and the patient was discharged on the 1st postoperative day. On postoperative day 3, she developed substantial milk drainage from the biopsy site and wound dehiscence. She was admitted to the hospital for wound care and oral broad-spectrum antibiotics were begun. She also developed engorgement of the breast, and the milk was drained using a breast pump. The wound dressing changed according to the amount of milk drained through the fistula. Laboratory examination showed that the prolactin level was mildly elevated, consistent with lactation. She underwent a consultation with the endocrinology department. The endocrinologist began oral cabergoline treatment at 0.5 mg twice per week. On day 3 of the treatment, the volume of milk drainage decreased, and she was discharged from the hospital. The pathological report of the excisional biopsy confirmed a lactation adenoma.

Two weeks after the operation, the wound was clear of any drainage, and the wound closed spontaneously on postoperative day 21. Cabergoline treatment was terminated 1 month after the operation. The patient was called for follow-ups at 3-month intervals.

Discussion

Milk fistula is an uncommon complication. It disrupts the patient's lifestyleand increases physicians' workload in terms of the requirement for intensive wound care.[2] Most breast lesions that develop during lactation are benign conditions; however, breast cancers are coincident with pregnancy and lactation in 3% of cases.[3] If a malignancy is found during lactation, the prognosis might be worse due to a possible diagnostic delay. Furthermore, the risk of milk fistula is higher for central and deep lesions.

In one study, milk fistulas were investigated in two groups independently: patients with simple fistulas (no previous surgical fistula repair and no nipple discharge), and those with complex fistulas (multiple previous attempts at drainage of abscesses, continuous nipple discharge, previous fistula repair, and previous total duct excision).[1] Fistulas were treated by duct excision with primary closure or by fistulectomy, then healed spontaneously with intensive wound care. Oral antibiotics were used to prevent infection. Simple fistulas were treated by total duct excision; however, half of the fistulas recurred. Therefore, the authors considered fistulectomy with primary closure to be a more appropriate procedure for simple fistulas.[1] Total duct excision is restricted to more severe cases, such as complex fistulas and periductal mastitis.

Medical management of milk fistulas is considered appropriate in selected cases. D2 receptor agonists have been used in such cases. Cabergoline is a potent dopamine receptor agonist on D2 receptors. It is frequently used in the management of prolactinomas due to its higher affinity for D2 receptor sites, less severe side effects, and more convenient dosing schedule compared with bromocriptine. We used cabergoline as a lactation suppressant at a low dose in the present case. Its side effects are mostly dose-dependent, and the low dose in our patient did not cause any complications.[4]

Several recent studies describe a new procedure; i.e. sonographically guided percutaneous triamcinolone injection, for fistula treatment. This technique is based on the consideration that a milk fistula is an inflammatory process and takes into account the powerful anti-inflammatory effect of triamcinolone. Triamcinolone is commonly used in skin diseases including hypertrophic scars, alopecia areata, and hidradenitis suppurative, and may be a therapeutic alternative for milk fistulas. In one study, a complete response after a single riamcinolone injection was observed in four cases, and in two patients who showed no response, the fistulas were resolved with additional injections at 2-week intervals. Although this study involved a small series of patients, the patients tolerated the procedure well and a minimal number of late skin complications were seen, indicating that triamcinolone injection can serve as an alternative to surgery. [5,6]

We herein described the first case involving the use of

cabergoline for the treatment of a milk fistula. With intensive wound care, the wound healed by spontaneous granulation without primary closure.

Figure 1. Postoperative 3rd day, a milk fistula seen at the biopsy site.

Figure 2. Postoperative 21st, the fistula healed spontaneously by granulation after cabergoline treatment and cessation of breastfeeding

References

1-Hanavadi S, Pereira G, Mansel RE How mammillary fistulas should be managed. Breast J. 2005;11(4):254-6.

2-Schackmuth EM, Harlow CL, Norton LW. Milk fistula:A complication after core breast biopsy. AJR Am J Roentgenol. 1993; 161(5):961-2.

3-Hornstein E, Skornick Y, Rozin R The management of breast carcinoma in pregnancy and lactation J Surg Oncol. 1982;21(3):179-82.

4-Melmed S, Casanueva FF, Hoffman AR, Kleinberg DL, Montori VM, Schlechte JA, Wass JA. Diagnosis and Treatment of Hyperprolactinemia:An Endocrine Society Clinical Practice Guideline. J Clin Endocrinol Metab. 2011;96(2):273-88.

5- Berná-Serna JD, Berná-Mestre JD, Piñero A. Sonographically guided triamcinolone injection for the treatment of chronic post-operative mammillary fistula. Br J Radiol. 2012;85(1020):1318-20.

6- Berná-Serna JD, Berná-Mestre JD, Piñero A, Canteras M. Efficacy of intralesional triamcinolone injection in the treatment of mammillary fistula: a prospective study. Acta Radiol. 2013;54(7):739-741.

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