

# NIPPLE ADENOMA OF THE BREAST: RECONSTRUCTION OF NIPPLE FROM THE AREOLA

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## ABSTRACT

Although the nipple adenoma is a relatively rare condition, awareness of this disease is extremely important because its clinical features resemble Paget's disease or ductal carcinoma of the breast. A failure to recognise the pathology could therefore lead to misdiagnosis and consequent surgery which would cause serious damage to the patient. We report a case of erosive adenomatosis of the nipple. Physical examination revealed erosive tumor measuring 17x11 mm

that was tender, swelled and indurated. There was a bloody discharge from the nipple. Cytological material from the nipple discharge showed a papillary cell cluster and punch biopsy revealed the nipple adenoma. We performed total nipple excision after pathological confirmation of diagnosis and reconstruction of the nipple with double opposing Z plasty.

**Key Words:** Breast, nipple adenoma, nipple reconstruction  
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## MEME BAŞI ADENOMU VE REKONSTRÜKSİYONU

### ÖZET

Meme başı adenomu, nispeten nadir görülen memenin iyi huylu bir hastalığı olmasına rağmen, klinik özellikleri Paget hastalığı veya memenin invaziv duktal karsinomu ile benzerlik gösterdiği için önemlidir. Bu patolojiyi tanımadaki yetersizlik yanlış tanı ve bunun sonucu olarak da yanlış cerrahiye yol açabilir. Kırk beş yaşındaki kadın hasta meme başında şişlik, kızarıklık

ve kanlı meme başı şikayeti nedeniyle Meme polikliniğine başvurdu. Fizik muayenede 17x11 mm'lik hassas, şişkin ve endurasyonu olan eroziv meme başı saptandı. Meme başı sitolojisinde papiller hücreler gözlendi ve meme başı adenomu tanısı panç biyopsi ile konuldu. Patolojik tanı konulmasından sonra hastaya total meme başı eksizyonu ve bu alana Z plasti ile areolar dokudan yeni bir meme başı yapıldı.

**Anahtar Kelimeler:** Meme, meme başı adenomu, meme başı rekonstrüksiyonu  
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## INTRODUCTION

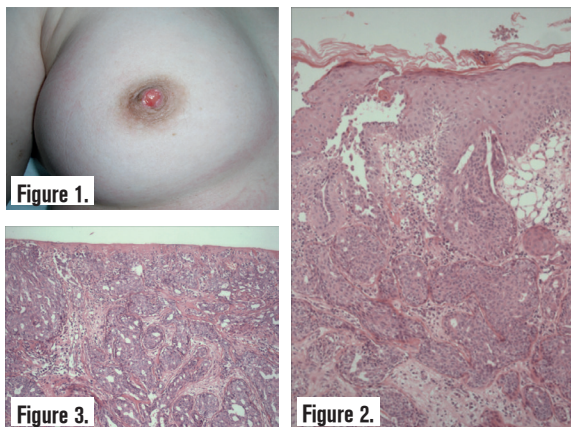
Nipple adenoma is a rare, distinctive and benign proliferative lesion that arises from the lactiferous duct of the nipple. Its significance lies in the clinical and histopathological resemblance to Paget's disease and well-differentiated adenocarcinoma because of causing nipple discharge and nipple erosion.<sup>1-5</sup> Total excision is the usual treatment modality because of its benign nature. Incomplete removal of erosive adenomatosis of the nipple can lead to recurrence.<sup>6</sup> When the tumor is small and lateral, cuneiform resection of the nipple is possible and usually sufficient. However complete excision of the entire nipple, as well as the underlying tissue requires an additional procedure to reconstruct the missing nipple.<sup>7</sup>

We describe a patient with nipple adenoma that was preoperatively diagnosed with punch biopsy. Entire eroded nipple was totally excised and nipple was reconstructed from the surrounded areola with double opposing Z plasty.

## CASE REPORT

A 45-year-old woman admitted to our Breast Surgery Service with a 2-year history of bloody nipple discharge, progressive swelling of the left nipple with a nonrecovering erosion on top (Figure 1).

She did not complain of any pain but she had a feeling of itching. Physical examination revealed slight swelling of the right nipple and erosive tumor involving whole nipple measuring 10x12 mm which was sore, crusted and indurated. There was a bloody discharge from the nipple and there was no peripheral infiltration and clinically palpable axillary lymph node. Breast examination and mammography did



**Figure 1.** Preoperative view of the ulcerated nipple. **Figure 2.** Punch Biopsy revealed glandular structures replacing the nipple stroma and florid (ordinary / usual type) epithelial hyperplasia in patient with erosive adenomatosis of the nipple. **Figure 3.** Proliferating glandular structures showing florid type epithelial hyperplasia and erosion of the surface epithelium (H&E, x100).

not reveal any palpable mass. Cytological specimens obtained from the discharge showed a small number of nonspecific epithelial cells.

A punch biopsy was performed. Histopathological examination revealed thickened epidermis with focal erosion and crusting. Proliferation of irregularly shaped glandular structures was observed within the nipple stroma, and the ducts were lined by an inner columnar epithelium and an outer cuboidal myoepithelial cell layer (Figure 2). Direct connection of the ductal structures and epidermis was present, and small horn cysts were observed just under the epidermis. Papillary projections of the ductal cells were seen in some areas, and the inner layer of the ducts showed apical secretory projections. The patient then had local curative excision of the lesion. Erosive adenomatosis of the nipple was confirmed by histopathologic evaluation (Figure 3). Proliferation of glandular structures all of which were invested by a myoepithelial cell layer was observed as reported at previous punch biopsy. Some of the structures were lined by a single layer of ductal epithelial cells. There was also florid intraductal hyperplasia without atypia. Histopathologic examination revealed that the nipple was completely covered with erosion (Figure 4).

A diagnosis of the nipple adenoma was made on the basis of the clinical, histopathologic, and mammographic findings. The final defect was corrected with double opposing Z plasty reconstruction using the surrounding areolar tissue (Figure 5). The patient was satisfied with good cosmetic appearance.

## DISCUSSION

Recognition of the nipple adenoma is important because it may resemble Paget's disease and well-differentiated adenocarcinoma. The most common clinical features of these diseases are bloody or serosanguineous nipple discharge, enlargement of the nipple and erosion.<sup>8</sup> The affected nipple in our case had erosion with bloody nipple discharge.

Nichols et al. reported 16 cases of this disease, 13 of which were diagnosed as Paget's disease or invasive ductal carcinoma, 15 of which were treated with radical mastectomy.<sup>2</sup> Other investigators have also described nipple adenomas misdiagnosed as carcinoma and treated by mastectomy.<sup>8-10</sup> Healey et al. pointed out the importance of histological diagnosis before the decision for surgery in the treatment of nipple adenoma and they have treated the nipple adenoma with local excision.<sup>11</sup> Kijima et al. performed tumor resection with preservation of the nipple.<sup>12</sup> →

For most authors, the treatment of choice for an adenoma of the nipple is limited to local excision.

Unfortunately, recurrence can occur if excision is incomplete. Perzin and Lattes performed local excision in 14 cases; 1 patient had a recurrence and needed to be treated with a wider excision.<sup>6</sup> Handley and Thackray advocated the total excision of the nipple and the areola with underlying breast tissue.<sup>9</sup> Bachioum et al. reported that the nipple and the subareolar tissue could be resected completely, and that nipple reconstruction should be added.<sup>13</sup> However, such procedures seem to be unnecessary for the disease which is completely benign. Kono et al. reported the case of nipple adenoma incidentally found in a mastectomy specimen with high Ki-67 labeling index in the superficial region and a tubular and florid papillomatous appearance.<sup>14</sup>

We performed complete excision of the nipple because of the extensive nipple erosion followed by reconstruction of the nipple with surrounding areolar tissue.



**Figure 4.** Nipple duct adenoma eroding the surface epithelium associated and usual type epithelial hyperplasia (H&E, x)100. **Figure 5.** Intraoperative view of reconstructed nipple with double opposing Z-plasty

It is important for breast surgeons to be aware of the nipple adenoma since it clinically mimics Paget's disease or invasive ductal carcinoma by producing erosion. Diagnosis of this benign lesion with cytology or punch biopsy prior to treatment schedule could prevent unnecessary and aggressive surgery instead of local excision. Furthermore, it is important to be aware of that there might be malignant transformation of the remnant tumor or coincidental presentation of adenoma of the nipple with breast carcinoma after surgical treatment.

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