

Introduction

- Zuska's disease is a rare condition characterized by recurrent central or periareolar abscesses associated with fistulas between the lactiferous ducts.^{1,2}
- Most commonly affects middle-aged women, specifically those with a history of tobacco use¹
- Common symptoms: breast pain, erythema, palpable mass, nipple discharge²
- Initial treatment typically involves drainage and antibiotics, though surgical excision is recommended for definitive treatment to decrease recurrence rates.³

Case Presentation

- A 35-year-old female with a history of prediabetes, tobacco use, recovery from alcohol dependence, chronic hidradenitis suppurativa of her bilateral inner thighs, and pilonidal cyst presented to outpatient plastic surgery clinic.
- Reported chronic drainage, erythema, nipple inversion and scarring at a prior incision and drainage site for a left breast abscess three years prior
- The left breast revealed a three-millimeter ulceration at the nine o'clock position with associated induration extending to the nipple and nipple retraction.
- Mammography revealed no suspicious masses, calcifications, or evidence of malignancy.
- Treatment options, including possible antibiotics for signs of active infection, smoking cessation, and eventual surgical excision, were discussed.
- One week after her follow-up visit, the patient underwent surgical excision of the left breast lesion, consistent with Zuska's disease.

References

- Serrano LF, Rojas-Rojas MM, Machado FA. Zuska's breast disease: Breast imaging findings and histopathologic overview. *Indian J Radiol Imaging*. 2020;30(3):327-333. doi:10.4103/ijri.IJRI_207_20
- Mirpuri-Mirpuri PG, Alvarez-Cordovés MM, Pérez-Monje A. [Zuska disease. Diagnosis and treatment in primary care]. *Semergen*. 2012;38(3):178-180.
- Gao X, Ju S, Wang TS, et al. Modified Surgical Approach for Treating Zuska's Disease: Complete Resection of the Sinus Tract and Duct. *Int J Womens Health*. 2024;16:2003-2009. doi:10.2147/IJWH.S492485

Results

Initial Wound

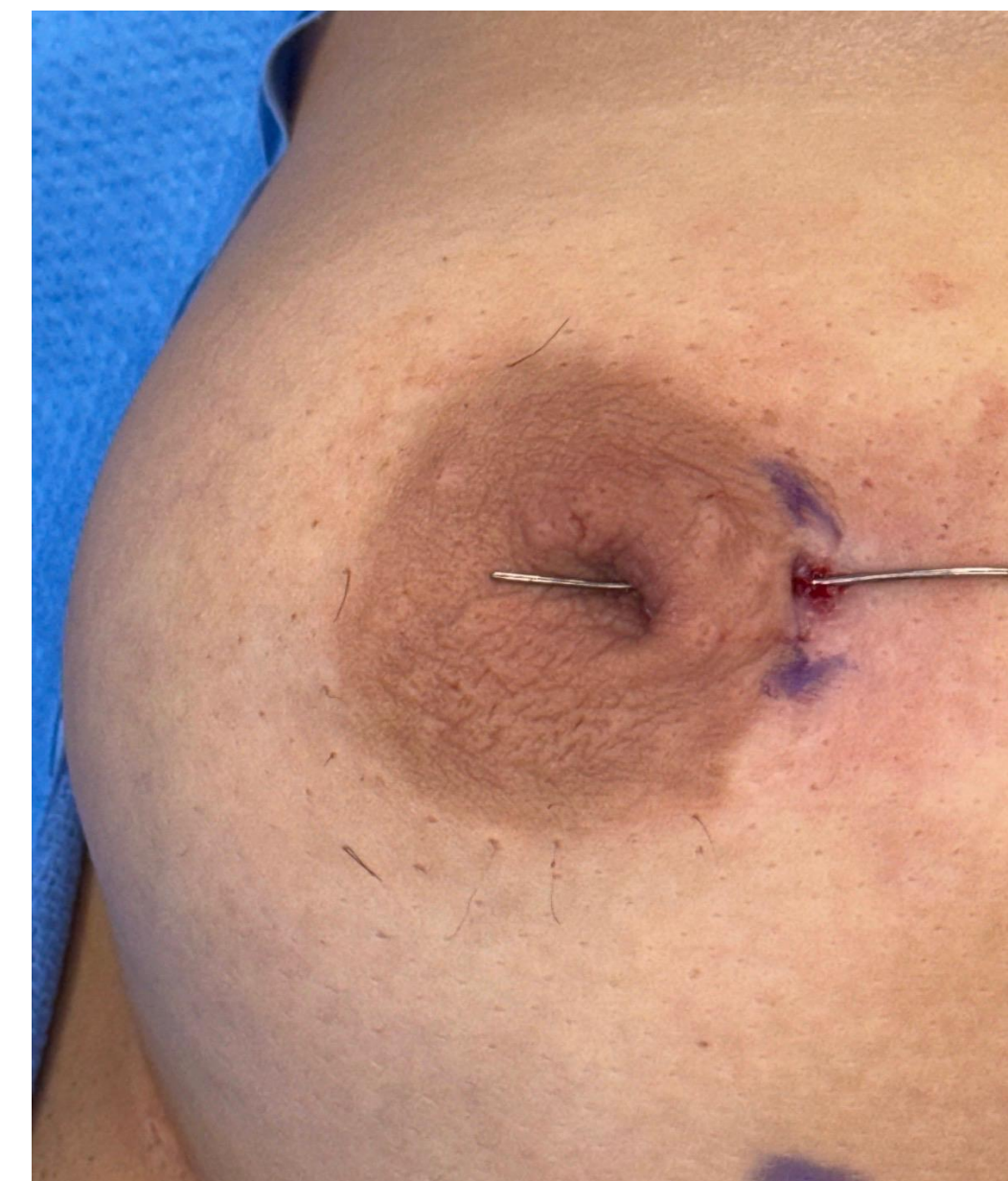


Figure 1: Photograph of the left breast exhibiting periareolar erythema and ulceration, at the nine o'clock position consistent with Zuska's disease.

Interoperative Findings

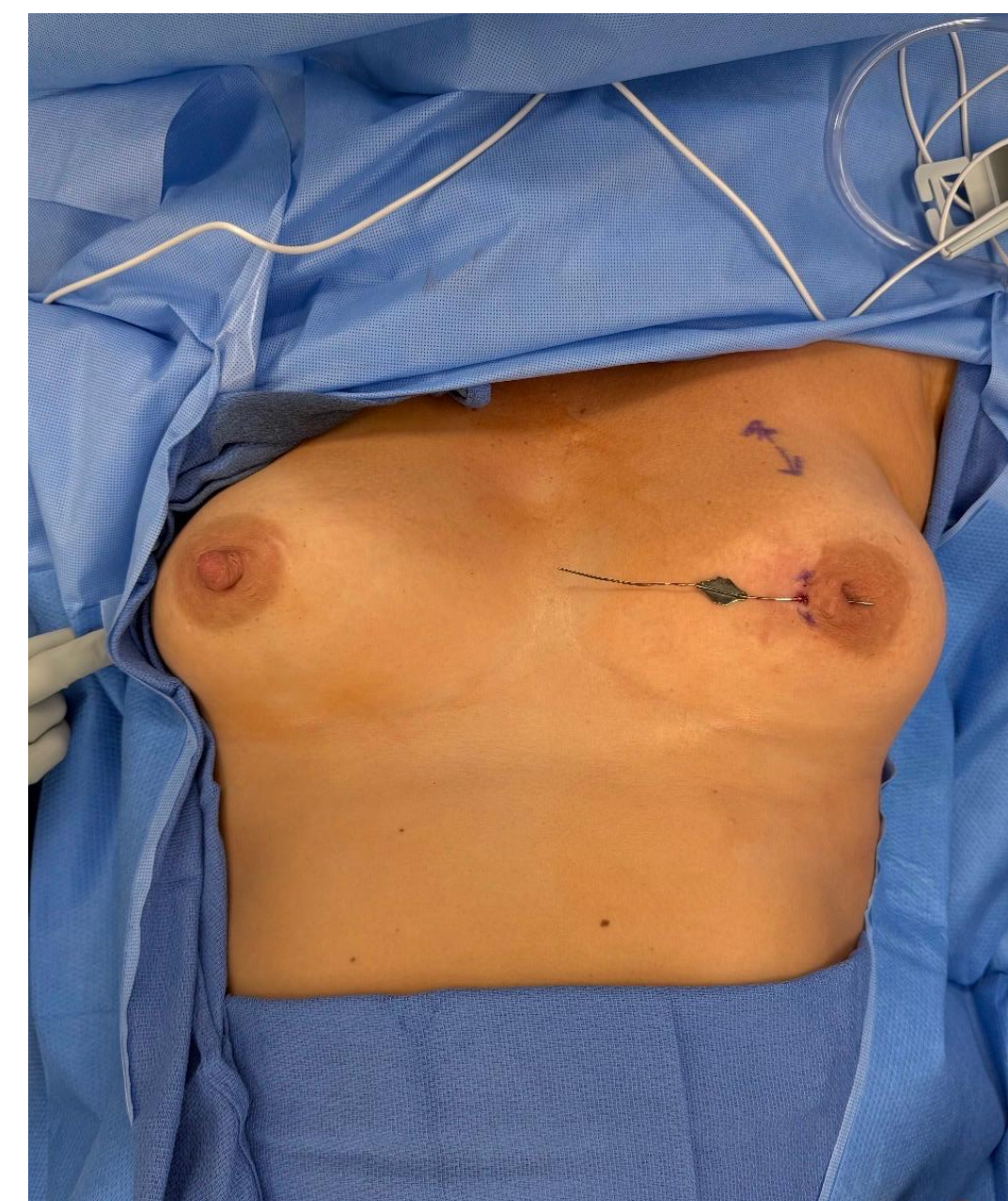


Figure 2A: Intraoperative image showing methylene blue injection, demonstrating the sinus tract prior to excision.



Figure 2B: Intraoperative image of the surgical defect following complete excision.

Clinical Outcome and Postoperative Course

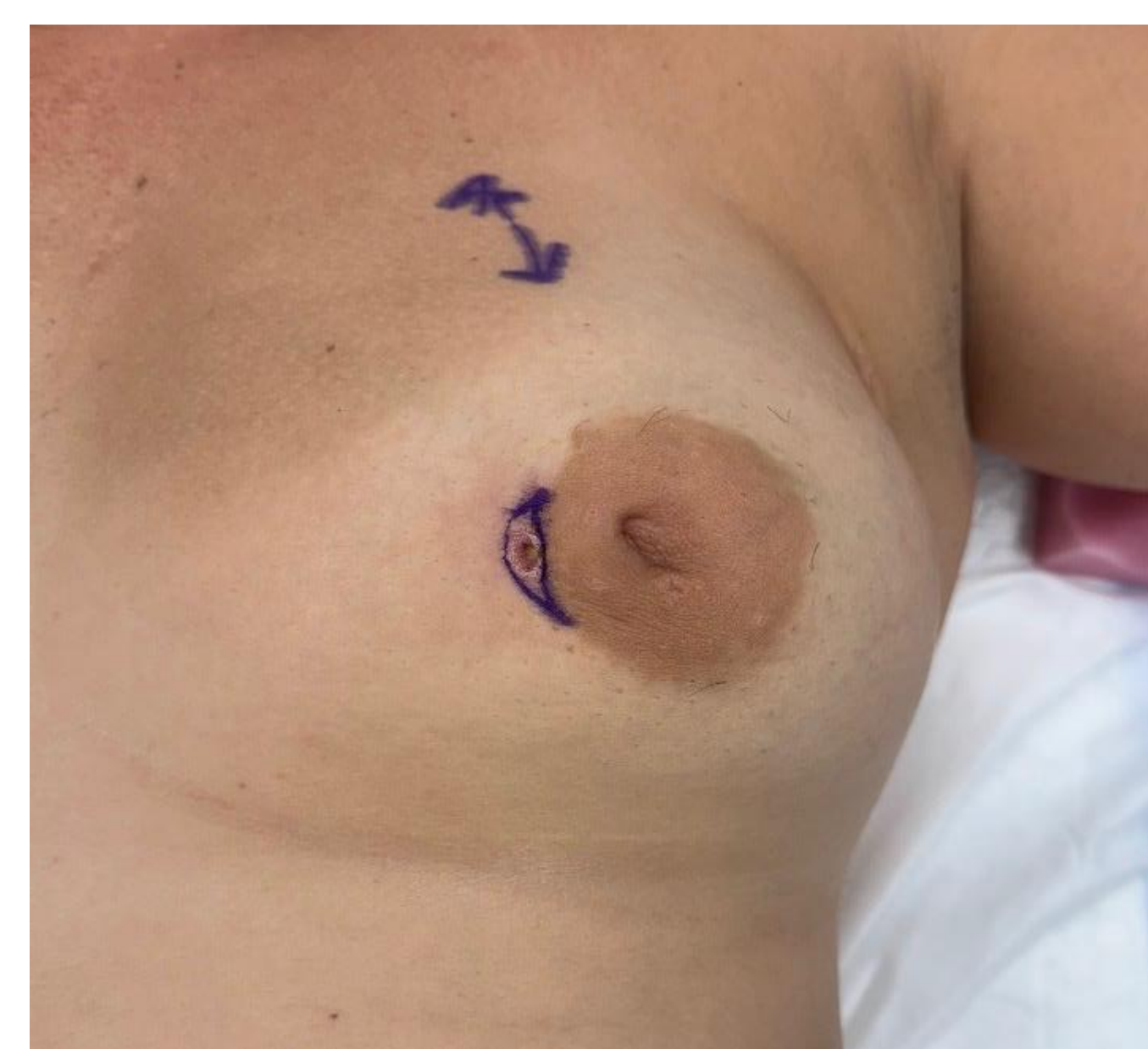


Figure 3A: Immediate postoperative appearance of the left breast following surgical excision.



Figure 3B: Photograph at one-month postoperative follow-up demonstrating wound healing and resolution of erythema.

Key Pearls

- Zuska's disease involves keratin overproduction, ductal obstruction, and bacterial infection.
- Tobacco use promotes chronic inflammation and increases recurrence risk.
- Recurrence of Zuska's disease remains a persistent complication.
- Excision of distal ducts after injection of methylene blue has been shown to be the most effective approach, reducing recurrence rates below 10% within six months.

Results

- Pathology of diseased tissue revealed subareolar abscess with fibrosis, with no evidence of atypia or malignancy.
- The postoperative course was uncomplicated.
- Wound care regimen included abdominal pads, silver alginate, and non-adherent oil-emulsion gauze dressings, and tape to prevent reopening.
- At one-month follow-up, the patient demonstrated complete wound healing with resolution of pain and no recurrence.

Conclusion

- Similar predisposing factors, such as obesity, genetics, diabetes, hormonal fluctuation, and cigarette smoking, may suggest an association between Zuska's disease and conditions of the follicular occlusion tetrad.
- Effective disease resolution for this challenging condition can be achieved through a multidisciplinary approach that integrates long term risk management, surgical expertise, and postoperative wound care.