

Zuska's Disease: A Case Report

Zuska Hastalığı: Olgı Sunumu

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Abstract

Zuska's disease (Lactiferous fistula, recurrent subareolar abscess), is a rare condition characterized by recurrent draining abscesses on the nipple on one or both breasts. There is not a hematological or immunological etiology and it is caused by plugging of lactiferous duct within the nipple by keratin. In this case report, we present a 39-year-old female patient with Zuska's disease.

Key Words: **Abscess; Fistula; Zuska's disease.**

Özet

Zuska Hastalığı (Laktiferöz fistül, Rekürren subareolar abse), bir veya her iki memede tekrarlayan apselerle seyreden nadir görülen bir durumdur. Etyolojik faktör olarak zeminde immünolojik veya hematolojik bir anomalinin tesbit edilemediği, meme başında laktiferöz kanalın keratinle tıkanmasının neden olduğu bir hastalıktır. Bu makalede zuska hastalığı tanısı koyduğumuz 39 yaşında bir kadın olguyu sunuyoruz.

Anahtar Sözcükler: **Abse; Fistül; Zuska Hastalığı.**

Introduction

Recurring subareolar abscess (Zuska's disease) is a rare bacterial infection of the breast that is characterized by a triad of draining cutaneous fistula from the subareolar tissue; a chronic thick, pasty discharge from the nipple; and a history of multiple, recurrent mammary abscesses. The disease is caused by squamous metaplasia of one or more lactiferous ducts in their passage through the nipple, probably induced by smoking. Keratin plugs obstruct and dilate the proximal duct, which then becomes infected and ruptures. The inflammation eventuates in abscess formation beneath the nipple, which typically drains at the margin of the areola. Because little is known about the disease, it is often misdiagnosed and inappropriately treated (1, 2, 3). We here presented a patient with recurring subareolar abscess. The patient was consulted to our clinics for evaluation of a probable underlying immunological or hematological disorder responsible from recurrent abscess.

Case report

A 39-year-old woman admitted to Immunology outpatient clinic complaining with a nine year history of recurrent subareolar abscess and duct fistula in both breast. She had a history of recurrent subareolar abscess and surgical therapy. She had type II diabetes mellitus adequately controlled with glucophage. She did not have any history of alcohol, illicit drugs use and/or smoking.

On admission, her temperature was 36 °C, pulse was 80 beats/min, blood pressure was 120/80 mmHg and respiratory rate was 22 breaths/min. She was oriented and well cooperated. Multiple subareolar abscess and duct fistula in both breasts and multiple abscess scars were noted. Her heart rate and rhythm were regular. Chest, neurological and abdominal examinations were unremarkable. Laboratory examination revealed a hemoglobin of 12.7 g/dL, hematocrit of 37.4%, WBC count of 8.100 /ml, platelet count of 340.000 /ml and eosinophil count of 170/mm³. Peripheral smear and blood-marrow aspiration were normal. Her routine blood tests were within normal limits. Erythrocyte sedimentation rate was 71 mm/h. Urine analysis showed leucocytes, especially neutrophils. The admission chest radiograph was normal. Antinuclear antibody (ANA) and rheumatoid factor (RF) tests were negative. Serum assay revealed that IgA level was 403 mg/dl (normal range: 70-400 mg/dl) and IgE level was 15.50 kU/ml (normal range: 0,0-100 kU/ml). Serum IgM, IgG (Subgroups; IgG1, IgG2, IgG3, IgG4), C3 and C4 levels were within normal ranges. Neutrophil

chemotaxis with the Nitroblue-Tetrazolium (NBT) test was normal. Flow cytometry revealed that 78% of the peripheral blood mononuclear cell were CD3, 55% CD4, 28% CD8, 9% CD16+56, 98% CD18, and 11% CD19. FT3 and FT4 levels and TSH blood level were within the normal ranges. The patient was seronegative for HbsAg, HCV, HIV-1, HIV-2 and M-protein. Ultrasonography of the breast revealed cystic multiple masses in inferior medial quadrant of right breast. Mamographic examination showed cystic multiple masses and increased density in the right breast. Abdominal ultrasonography, pelvic ultrasonography, computerized tomographic scanning of the abdomen and pelvis were normal. The patient was initially treated with drainage of abscesses and surgical management.

Discussion

In our patient with a history of recurrent abscess, etiological factors related to primary and secondary immune deficiencies were investigated. IgA deficiency and common variable immunodeficiency (CVID) are the most frequently encountered diseases. CVID is the most prevalent primary immunodeficiency disease and predominantly affects adults (4). The primary defect remains unknown, but it seems to be related with dysfunction of peripheral blood T lymphocytes in a substantial proportion of CVID patients, which may impair T-B cell collaboration. CVID involves low levels of most or all of the immunoglobulin (Ig) classes, a lack of B lymphocytes or plasma cells that are capable of producing antibodies, and recurrent bacterial infections (5-7). No growth determined in bacterial cultures. With the help of blood Ig levels and peripheral lymphocyte count with flow cytometric analysis humoral and cellular immune deficiencies were excluded.

Various cutaneous lesions can be observed in patients with hematologic malignancies (8). These include specific cutaneous lesions resulting from infiltration of the skin by the malignant cells, characteristic diseases such as pyoderma gangrenosum and Sweet syndrome, cutaneous signs of infection or hemorrhage resulting from the bone marrow dysfunction induced by the malignant process or chemotherapy (9). We excluded malignancy by blood tests and imaging techniques and also biopsy specimen from lesions revealed squamous metaplasia in ducts.

The disease process is often managed inadequately by repeated courses of antibiotics and/or incision and drainage procedures that temporarily may relieve the abscess

collection but fails to correct the primary inciting process. Repeated surgical procedures may lead to multiple scars, nipple and breast distortion without cure of the problem, or even to mastectomy. Successful definitive treatment of retroareolar abscesses necessitates excision of the central nipple, including the obstructed ducts. This technique achieves a cure rate of 91% and an overall 95% satisfaction rate in the cosmetic outcome of the nipple (10).

In conclusion, Zuska's disease, although a rare disease, must be considered in differential diagnosis of recurrent breast diseases.

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