

## Sweet's syndrome-like dermatosis associated with paracetamol and chlorpheniramine maleate bilaterally localized on breasts

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### Özet

Sweet sendromu dermişte yoğun nötrofil infiltrasyonu ile karakterize reaktif bir süreçtir. Ateş ve periferik nötrofil ile birlikte genellikle üst ekstremiteler, yüz veya boyunda lokalize kırmızı renkli, hassas ve ısı artışı gösteren papül, nodül ve plaklar ile seyretmektedir. Sweet sendromu sıklıkla idiyopatik olup bazen hastalıklara eşlik etmekte, nadiren de ilaçlara bağlı gelişmektedir. İlaçla ilişkili bazı olgularda klinik Sweet sendromuna benzese de histolojik infiltratın tipi ve bazılarında da sistemik bulguların olmaması nedeniyle farklılık gösterebilmektedir. Burada meme derisinde lokalize parasetamol ve klorfeniramin maleat ile ilişkili sıradışı bir Sweet benzeri dermatoz olgusu sunulmaktadır.

**Anahtar Kelimeler:** Sweet benzeri dermatoz, meme, ilaç, nonsteroidal antiinflamatuar ajan

### Abstract

Sweet's syndrome is a reactive process with massive neutrophil infiltration of the dermis. It presents with warm, tender, red papules, nodules and plaques usually occur on the upper extremities, face or neck with typically concomitant fever and peripheral neutrophilia. The Sweet's syndrome is so often idiopathic, sometimes associated with diseases and drugs rarely. Some of the drug-related cases clinically present like Sweet's syndrome but partly differ with the type of histologic infiltrate and in some of them with the absence of systemic manifestations. We describe herein an unusual Sweet's syndrome-like dermatosis case associated with paracetamol and chlorpheniramine maleate localized on breasts.

**Keywords:** Sweet-like dermatosis, breast, drug, nonsteroidal antiinflammatory agent

### Introduction

Sweet's syndrome is a reactive process characterized by massive neutrophil infiltration of the dermis resulting in the development of the abrupt onset of tender, red papules and nodules that coalesce to form plaques. The plaques usually occur on the upper extremities, face or neck and are typically accompanied by fever and peripheral neutrophilia. The Sweet's syndrome is so often idiopathic, sometimes associated with hematological, inflammatory and immunological diseases and drug-related forms have also been reported (1, 2). Herein we report an unusual Sweet's syndrome-like dermatosis case localized on breasts associated with paracetamol and chlorpheniramine maleate.

### Case Report

A 56-year-old female patient admitted to our outpatient clinic with redness, tenderness and pain on both breast preceded by nausea and vomiting, joint pain and fatigue for three days. It was learned from her history, similar complaints occurred three times before and declined with antibiotic treatment. Dermatological examination demonstrated tender, indurated erythematous plaques on both of the breasts (Figure 1). There was no pathology except for elevated white blood cell, ESR and CRP in laboratory values. Erysipelas, carcinoma erysipeloides and granulomatous mastitis were primarily thought in patient with clinical signs, and skin biopsy was taken for

differential diagnosis. The biopsy samples were also sent to the laboratory for tuberculosis. Wet dressing and sulbactam-ampicillin 4x1,5 g (iv) were started. There were no pathological findings in breast mammography and breast ultrasonography in terms of carcinoma. Chest X-ray was normal in terms of Tbc. Ig levels, C3, C4, autoimmunity markers are in normal ranges and Brucella serology was negative. Ciprofloxacin 2x400 mg (iv) was added to the treatment because of the clinical progression of erythema and then the clinical improvement was occurred in 10 days. Histopathological examination of the biopsy specimen taken from the skin revealed orthokeratosis in the surface, a mixed inflammatory infiltrate concentrated around dermal vessels and dispersed between collagen fibers and which composed of eosinophils, lymphocytes, histiocytes, neutrophils and a few focus of leukocytoclasia (Figures 2-4). Pathological findings were interpreted as Sweet like dermatosis associated with drug. The result (ARB and PCR) of the skin sample taken for TBC was negative. It was learned that patient had used an anti-inflammatory drug containing paracetamol and chlorpheniramine maleate three days before the start of complaints, when questioned again with the result of pathology report.

## Discussion

Sweet's Syndrome (SS) was first described by Robert Douglas in 1964 in patients who presented with fever and neutrophilic dermatosis (2). The dermatosis can occur in various forms, as classical (idiopathic), malignancy related, or rarely drug-induced. The diagnosis is based on both clinical and histopathologic findings. Characteristics are non-scarring lesions and neutrophilic infiltrate with the absence of vasculitis (1,2). For drug induced type, Walker and Cohen proposed diagnostic criteria that includes a temporal relationship with drug introduction and removal, rash preceded by fever and histological confirmation (3). Sweet's syndrome has rarely been described in association with medications such as trimethoprim-sulfamethoxazole, all-trans-retinoic acid, proton pump inhibitors, aceclofenac and azathioprine (3-7).

Sweet's-like lesions associated with bortezomib, radiocontrast agents and paracetamol have been reported in the literature (8-10). There are a few cases associated with bortezomib in which the lesions are consisting of acute painful, edematous and erythematous papules or plaques that mainly affect the neck and upper third of the trunk which clinically resemble the plaques seen in Sweet syndrome but can be distinguished by the absence of other systemic features (fever, elevated CRP levels, and neutrophilia) and by certain histologic features (presence of vasculitis in many cases and mixed leukocytic infiltrate instead of a neutrophilic infiltrate). For this reason, in these cases, authors prefer to refer to them as Sweet's-like dermatosis (8). Alper et al. reported a case in which Sweet's-like neutrophilic dermatosis was occurred following administration of radiocontrast agent. The patient had systemic features (fever, neutrophilia) and neutrophilic infiltrate in dermis different from bortezomib cases (9). In the paracetamol-induced Sweet's-like dermatosis case, the typical erythematous and edematous rash seen in trunk and extremities and accompanied by elevated CRP, neutrophilia and fever (7).

In our patient there was a temporal relationship between the start of drug intake and the onset of the lesions in the absence of any other known precipitating factors, and her skin lesions resolved with discontinuation of the drug. Skin biopsy showed mixed diffuse leukocytic infiltrate consistent with bortezomib cases, involving the full thickness of the dermis with a few focus of leukocytoclasia. Based on the above, we considered that our patient developed Sweet's-like dermatosis associated with paracetamol and chlorpheniramine maleate. Our patient had systemic features different from bortezomib cases as in the cases who developed Sweet's-like dermatosis due to radiocontrast agent and paracetamol. We report this case since it is an unusual Sweet's Syndrome-like toxic dermatitis associated with paracetamol and chlorpheniramine maleate. As we know, this is the first case report of Sweet's-like dermatosis localized only on breasts in the literature.

Erythematous lesions localized on breast usually bring to mind breast cancer, in addition to this, our case showed

drug reactions should also keep in mind in such cases and history of drug intake must be questioned well.

## Figure Legends

Figure 1. Indurated erythematous plaques localized on the breasts



Figure 2. Mixed inflammatory cell infiltration around the collagen fibers and dermal vessels in the dermis (HE,x40)

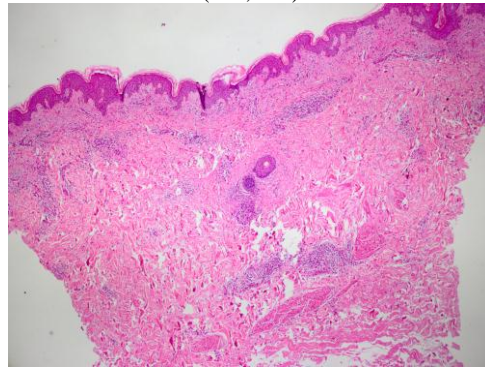


Figure 3. Mixed inflammatory infiltrate composed of neutrophils, eosinophils, lymphocytes and histiocytes among the collagen fibers in the superficial dermis (HE,x100)

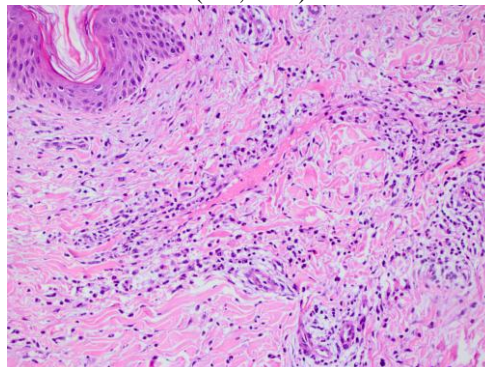
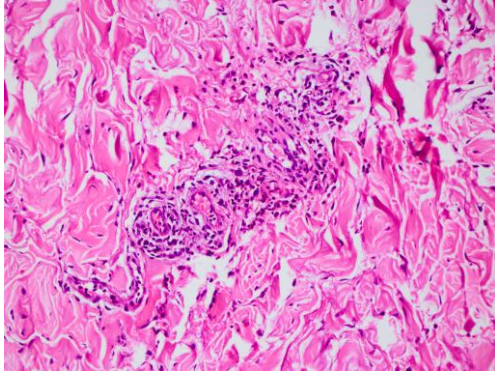


Figure 4. Inflammatory infiltrate around dermal vessels showing leukocytoclasia (HE,x200)



### Kaynaklar

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