

A Case of Sweet's Syndrome that Preceded the Diagnosis of Prostate Adenocarcinoma

Prostat Adenokarsinomu Tanısına Öncülük Eden Sweet Sendromu Olgusu

Ülker GÜL, MD,^a
Arzu KILIÇ, MD,^a
Müzeyyen GÖNÜL, MD,^a
Seçil SOYLU, MD,^a
Murat DEMİRİZ, MD^b

^a2nd Dermatology Clinic,
Ankara Numune Education and
Research Hospital,
^bDepartment of Pathology,
GATA, Ankara

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Yazışma Adresi/Correspondence:
Arzu KILIÇ, MD
Ankara Numune Education and
Research Hospital,
2nd Dermatology Clinic, Ankara,
TÜRKİYE/TURKEY
kilicarzu2004@yahoo.com

ABSTRACT Sweet's syndrome, one of the neutrophilic dermatoses, is idiopathic in most cases. In 10-20% of cases it is paraneoplastic, mostly associated with a haematological malignancy. In this report, a 82 year old man in whom Sweet's syndrome preceded the diagnosis of prostate adenocarcinoma is reported. The dermatosis regressed after the resection of the tumour. In this report, we want to emphasize that appropriate investigations should be undertaken in the presence of Sweet's syndrome.

Key Words: Sweet's syndrome; prostatic neoplasms; paraneoplastic

ÖZET Nötrofilik dermatozlardan biri olan Sweet sendromu çoğu olguda idiyopatiktir. Olguların %10-20'sinde paraneoplastik olup, en sık hematolojik malignansilerle birlikte görülür. Bu yazıda, Sweet sendromunun prostat karsinomuna öncülük ettiği 82 yaşında erkek olgu sunuldu. Dermatoz, tümörün rezeksiyonu ile geriledi. Bu yazıda Sweet sendromunun varlığında gerekli olan incelemelerin yapılması gerektiğini vurgulamak istiyoruz.

Anahtar Kelimeler: Sweet sendromu; prostat kanseri, paraneoplastik sendrom

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Sweet's syndrome is an acute febrile neutrophilic dermatosis characterized by pyrexia, neutrophilia and generalized erythematous skin lesions, primarily involving the head, neck and upper extremities.¹ The disorder is associated in about 20% of instances with a malignancy.^{1,2} In this report, we present a case of Sweet's syndrome who was found to have prostate adenocarcinoma.

CASE REPORT

A 82-year-old man presented to our clinic with a 10 day history of acute occurrence of red, painful swellings on both of his hands. He had fever and arthralgia accompanying these skin lesions. He did not have recent upper respiratory or gastrointestinal disease. He was taking no medication. On dermatological examination, tender erythematous plaques localized on both of his palmar regions were detected (Figure 1 and 2). Histopathological examination of the biopsy from the lesions revealed Sweet's syndrome (Figure 3 and 4). Routine laboratory tests were normal except an increase in the



FIGURE 1: The erythematous papules and plaques on the dorsum of both hands.



FIGURE 2: The appearance of the lesions on palmar regions.

levels of erythrocyte sedimentation rate (72 mm/h), C-reactive protein (CRP) (203 mg/mL; N: 0-5) and prostate-specific antigen (28.47 ng/mL; N: 0-4). No pathological growth was detected in the cultures of blood, urine and throat. No pathology was found in abdominal ultrasonography, thorax and abdominal tomography. Due to the increase in the level of prostate-specific antigen, the patient was consulted with Urology department and a prostate biopsy was performed. The histopathological examination of the biopsy from prostate revealed prostate adenocarcinoma (Gleason pattern grade 3). The patient was operated by Urology clinic (prostatectomy+bilateral orchiectomy), and soon after the operation, his lesions on both of the hands regressed without any treatment.

DISCUSSION

Sweet's syndrome (acute febrile neutropilic dermatosis) is a cutaneous disorder that is usually characterized by abrupt onset of tender red plaques or

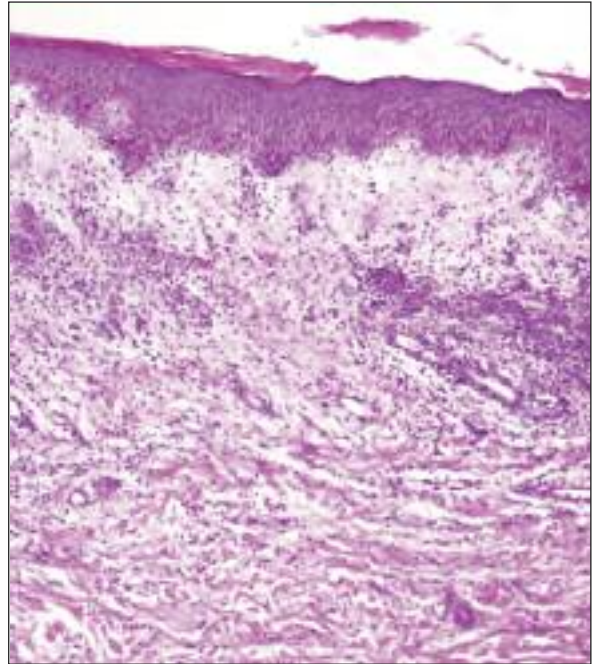


FIGURE 3: Edema and band like inflammatory infiltrate are seen in upper and mid dermis (HE,x25).

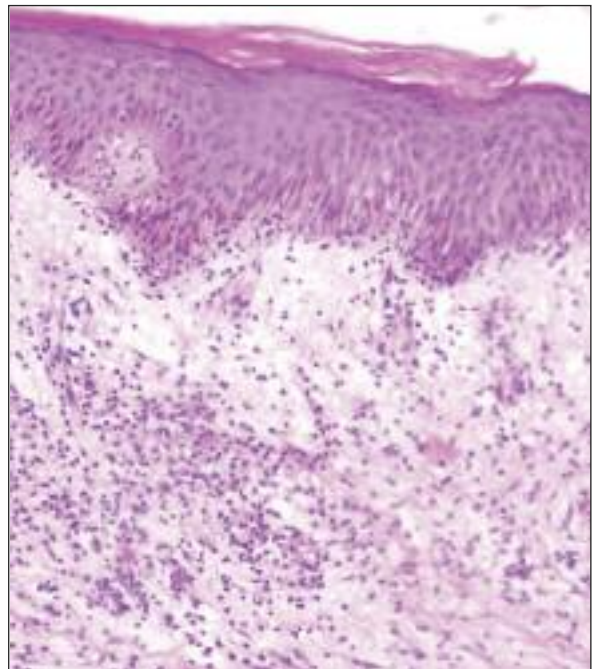


FIGURE 4: Perivascular neutrophilic leucocyte infiltration in the edematous stroma (HE, x100).

nodules accompanied with fever, arthralgia, arthritis and neutrophilia.^{1,2} Sweet's syndrome was originally described by Dr. Robert Douglas Sweet in 1964.^{1,3} Sweet originally described four cardinal features of this disease:

- 1) Fever
- 2) Peripheral leucocytosis
- 3) Tender red plaques on the limbs, face and neck
- 4) A dense dermal infiltrate of mature neutrophils.³

Su and Li proposed two major and four minor criteria for the diagnosis of Sweet's syndrome, which has been revised by von den Driesch.^{3,4}

The exact cause of Sweet's syndrome is still unknown. However, an immunological mechanism has been suggested.⁵ The disease is thought to be a hypersensitivity reaction triggered by viral, bacterial or tumor antigens in generally predisposed patients.⁶ Sweet's syndrome is associated with a variety of inflammatory or paraneoplastic diseases. It may be associated with malignancies in approximately 10-20% of cases. Among them, hematological malignancies are most prevalent (85%), followed by solid tumours (15%).⁵⁻⁷

The cutaneous lesions are often described as painful, erythematous, sharply demarcated, raised plaques. They begin as papules, which coalesce or increase in size to form plaques, and are often mistaken for an infectious process and treated with antibiotics unsuccessfully. The lesions frequently occur on the trunk, extremities, head and neck. Our patient

fulfilled the criteria of Sweet's syndrome (abrupt onset of erythematous plaques on hands, fever, increase in CRP, sedimentation).^{1-3,6} The active phase of the illness can last approximately two-three months if not treated. The differential diagnosis includes erythema multiforme, erythema nodosum, erythema elevatum et diutinum, Behçet's disease, chronic bowel bypass syndrome and pyoderma gangrenosum.¹

Sweet's syndrome usually precedes or coincides with the onset of malignancy, and in many cases, recurrences are described to antedate the worsening of the underlying malignancy.⁶ In around one third of the patients, onset of Sweet's syndrome, it follows the the diagnosis of solid tumours.^{6,7} Hussein et al., described a case of Sweet's syndrome in association with adenocarcinoma of prostate and transitional cell carcinoma of the urinary bladder.⁶ Barnadas et al., reported a case with Sweet's syndrome who had prostate adenocarcinoma and myelodysplastic syndrome.⁸ In our patient, the diagnosis of Sweet's syndrome preceded the diagnosis of prostate adenocarcinoma.

The classical findings in Sweet's syndrome is a dense diffuse dermal infiltrate of mature neutrophils in the upper and mid-dermis without evidence of vasculitis.¹⁻³

Since Sweet's syndrome may be the presenting sign of a new or recurrent tumour, the possibility of an underlying neoplasm should be investigated. Therefore, we report another case of Sweet's syndrome that preceded the diagnosis of malignancy. We would like to emphasize the importance of investigation of malignancy in Sweet's syndrome.

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