OLGU SUNUMU CASE REPORT

A Case of Pyoderma Gangrenosum Associated with Myelofibrosis

Myelofibrozisin Eşlik Ettiği Bir Piyoderma Gangrenozum Olgusu

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ABSTRACT Pyoderma gangrenosum (PG) is a rare, destructive and inflammatory skin disease. Associated systemic disorders are observed in half of the cases. Association with myeloproliferative disorders have been reported frequently among the hematologic disorders but association with myelofibrosis has been reported very rarely. A 35-year-old man with myelofibrosis since 11 years was consulted to our clinic because of the lesions localized on the injection area on his left arm. On dermatological examination a 2x3 cm sized bullous lesion on a sharp bordered erythematous plaque was observed. The lesion spread peripherally and changed to 15x20 cm sized, sharp bordered, ulcerated lesion with a purple halo in 10 days. Hystopathological examination of the lesion was consistent with PG. We report our case as PG associated with myelofibrosis is very rare and the development of the lesion after the injection points out to the pathergy phenomenon in the PG.

Key Words: Pyoderma gangrenosum, myelofibrosis

ÖZET Piyoderma gangrenozum nadir görülen destrüktif, inflamatuvar bir hastalıktır. Olguların yarısında eşlik eden bir sistemik hastalık vardır. Hematolojik hastalıklar arasında miyeloproliferatif hastalıklar ile birlikteliğin sık olduğu, fakat miyelofibrozisle birlikteliğin nadir olduğu bildirilmektedir. Otuzbeş yaşında, 11 yıldan beri miyelofibrozisi olan hasta sol kolundaki enjeksiyon bölgesine yerleşmiş lezyonların değerlendirilmesi için bölümümüze konsülte edildi. Dermatolojik muayenede keskin sınırlı eritematöz plak üzerinde 2x3 cm çaplarında büllöz lezyon izlendi. Lezyon çevreye doğru genişleyerek 10 gün içinde keskin sınırlı mor bir halo ile çevrili 15x20 cm çaplarında ülsere bir lezyon halini aldı. Lezyonun histopatolojik incelemesi piyoderma gangrenozum ile uyumluydu. Olgumuzu miyelofibrozisle piyoderma gangrenozum birlikteliğinin nadir olması ve lezyonun enjeksiyondan sonra gelişmesinin piyoderma gangrenozumda paterji fenomeninin pozitifliğini göstermesi nedeniyle sunuyoruz.

Anahtar Kelimeler: Piyoderma gangrenozum, myelofibrozis

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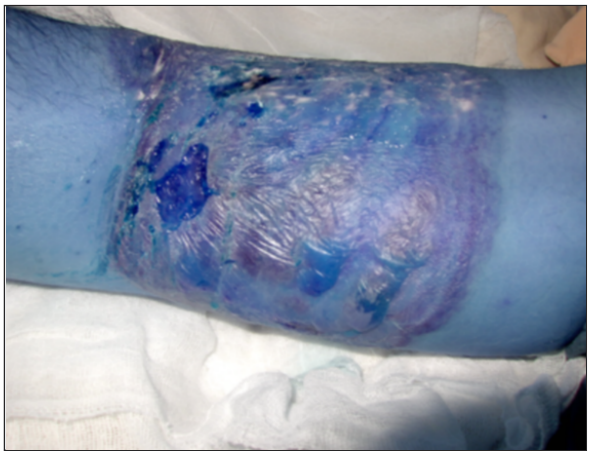
Pyoderma gangrenosum (PG) is a rare destructive, inflammotory skin disease.[1] Half of the cases have an associated systemic disease. Leukemia has been the most frequent hematological disorder reported associated with PG. We present our case since association with myelofibrosis and PG is rare.

CASE REPORT

A 35-year-old man was consulted to our clinic because of the 2x3 cm sized bullous lesion on an erythematous plaque. The lesion was localized



RESİM 1: Sharp bordered plaque lesion with a large bullae and purple halo on the upper arm.

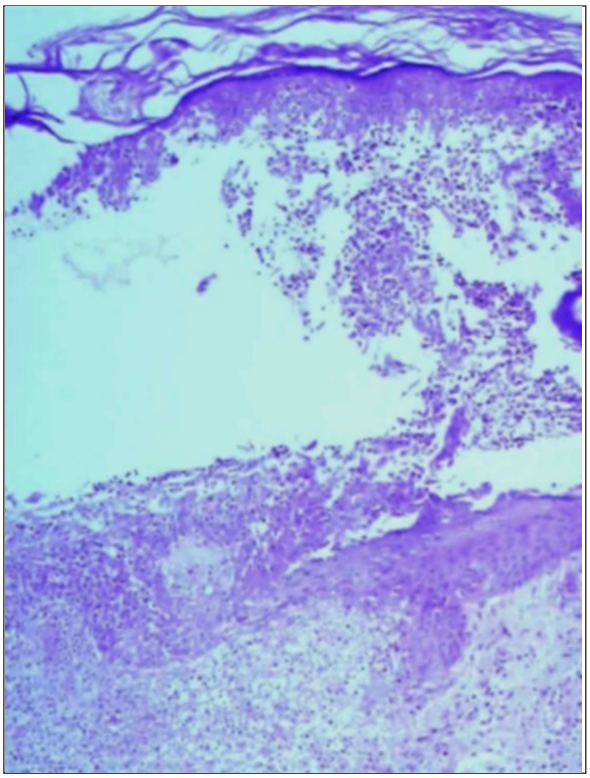
on the area of vancomycin injection which was administered for bacterial infection developed after varicella zoster infection on the face. The lesion had developed 48 hours after the injection and spread peripherally and changed to a 15 x 20 cm sized, sharp bordered, ulcerated lesion with a purple halo in 10 days (Figure 1). Idiopathic myelofibrosis was diagnosed 11 years ago and the patient was being followed up by the Hematology Clinic. He had been taking oxymetholone 50 mg, calcitriol 0.5 mcg and folic acide 5 mg orally. Physical examination was normal except the skin lesion. The routine laboratory tests revealed hemoglobine: 5 g/dl (normal: 14.00-17.50 g/dl), platelet: 55.000 K/uL (150 000-450 000 K/uL), white blood cell: 3.64 K/uL (4.40-11.30 K/uL), erytrocyte sedimentation rate: 118 mm/h, C reactive protein: 201 mg/L (0.00-5.00 mg/L). Splenomegaly was detected on abdominal ultrasonography. There were no other pathological findings. Histopathological examination of the skin revealed necrosis and ulceration in epidermis, edema in upper dermis, perivascular inflammatory cell infiltration (consisting predominantly of neutrophils), and perivascular necrosis. These findings were consistent with the diagnosis of PG (Figure 2, 3).

Oral corticosteroid therapy (80 mg) was initiated orally for PG. The lesion regressed significantly 20 days after the initiation of the therapy and corticosteroid dose was lowered gradually.

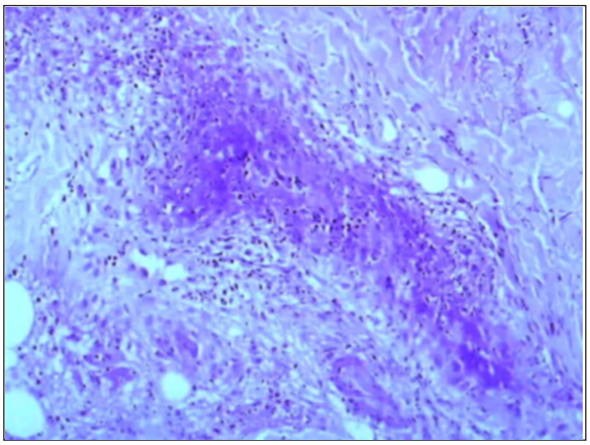
DISCUSSION

Pyoderma gangrenosum is a rare skin disease characterized with painful, destructive ulceration. This entity was initially described by Brunsting, Goeckerman and O'Leary in 1930.[1,2]

Etiopathogenesis of PG is not known exactly; however, it has been reported that new lesions de-



RESİM 2: Ulceration in the epidermis and edema in the dermis (H & E x 25).



RESİM 3: Leukocytoclastic vasculitis with obliteration of the vessels, polymorphonuclear leucocytes and fibrin (H & E x 100).

veloped in 20% patients after the intradermal skin tests, injections as in our case, insect bites, biopsies and operations.[2,3] This is considered *as* pathergy phenomenon which is characterized with excessive and uncontrolled inflammatory response to nonspecific stimuli, and present itself with the development of new lesions.[3,4] Also, some authors have thought that koebnerization which *is* defined as aggrevation of present lesions after the trauma is typical in PG.[5]

Neutrophils might play a role in the etiopathogenesis of PG, because neutrophils are the most common cells observed in the histopatholgy of PG lesions and PG may develop after the granulocyte-macrophage colony-stimulated factor therapy.[2]

The characteristical lesions of PG are purple-red, irregular ulcers with necrotic bases and inflammatory borders. The lesions begin as a deep, painful nodule or superficial, hemorhagic pustules than hemorhagic or purulent exudations develop and transforms to an ulcer. The spreading ulcer has bright erythematous halo. The ulcers may be limited to the dermis but may spread to the adipose tissues even facia. The lesion is usually single but may start as groups and become united causing multicentric ulcers.[2,6]

PG has two forms clinically: First form is fast spreading form characterized with fever, suppuration, pain and inflammatory halo. Second form is the slow spreading form which has granulation, crusting on the ulcer and hyperkeratosis on the margin. Both forms may regress with atrophic and cribriform scars spontaneously.[1,2] Our case was clinically the fast spreading form.

There are also localized vegetative and atypical bullous forms of PG. Atypical bullous form is usually seen in the preleukemic and leukemic patients and characterized with slow growing, soft papules and purplish, hemoragic bullous lesions.[2,6]

Crowson et al reported five clinicopathological forms of PG; bullous, pustular, vegetative, ulcerative and vesiculopustular. They informed that bullous and ulcerative forms are more frequently forms associated with hematologic malignancies than the other forms.[5]

The lesions are localized usually to lower extremities but may be localized to any area of body; aphthous lesions in the oral mucosa and ulceration of mucous membranes also had been reported.[1,2]

Histopathological findings of PG are non-specific. Edema, dense neutrophilic infiltration, necrosis, hemorragia, and trombosis of small and medium sized vessels may be seen. Fibrinoid necrosis and vasculitis characterized with leukocytoclastic vasculitis as in our patient were also reported.[1,2]

The association of PG and systemic disorders is frequent. The most common associated disorders are inflammatory bowel disease and PG; however, association with arthritis, gammopathies, connective tissue diseases, chronic active hepatitis, diverticulitis, primary bilier cirrosis, gastric and duodenal ulcers, Behçet's disease, solid tumors, pnomonitis, abcess of lung, and diabetes mellitus were also reported.[1,2,6] Myeloid leukemia is the most frequent hematologic disorder associated with PG. The association with myeloma, myelodisplasia, hairy cell leukemia, policytemia vera, and thrombocytopenic purpura and PG was reported very rarely.[2,6,7] The association with myelofibrosis is very rare and to our knowledge16 cases were reported previously in the literature.[3,7-10]

In some of the previously reported cases of PG associated with myelofibrosis, myelofibrosis was diagnosed before diagnosis of PG, but in some of them PG was seen before diagnosis of myelofibrosis.[8] PG was diagnosed in our case 11 months after the diagnosis of myelofibrosis.

Primary treatment of PG is the treatment of underlying disorder, if present, initially. Corticosteroids, sulpha group drugs, cyclosporin, azathioprine, methotrexate, cyclophosphamide, chlorambucil, clorphazimine and mycophenolate mofetil are used in the treatment of PG. Local wound care is also important in treatment of PG.[1,2]

The cases of PG associated with myelofibrosis were treated with oral or intraveneous steroids previously and responded very well.[3,8,9] We also prefered steroid therapy for our patient and his lesions regressed very rapidly.

Myelofibrosis may be a cause of PG and the diagnosis of PG should be thought in cases with myelofibrosis who have cutaneous ulcers, induration and/or bullous lesions.

We report our case as the association of PG with myelofibrosis is very rare and the development of the lesion after the injection points out to pathergy phenomenon in PG.

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