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PHOTOLETTER TO THE EDITOR

Scarring alopecia resulting from pyoderma gangrenosum of the scalp

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Abstract

Pyoderma gangrenosum is an uncommon ulcerative cutaneous condition of uncertain aetiology. It is a disease that causes tissue to become necrotic, leading to deep ulcers. We report a case of pyoderma gangrenosum localized at the scalp, which is an unusual location. After 16 months of treatment with prednisolone 40 mg daily, methotrexate 15 mg weekly, ciprofloxacin 500 mg and honey dressing the indurated elevated ulcer margins flattened and the ulcer healed with scarring of the entire scalp. (*J Dermatol Case Rep*. 2012; 6(1): 34-35)

Key words:

adolescent, cicatricial alopecia, ciprofloxacin, honey, methotrexate, prednisolone, scalp, scar

Pyoderma gangrenosum (PG) is an uncommon ulcerative cutaneous condition of uncertain aetiology. The disease causes tissue necrosis, leading to deep ulcer, and is most commonly localized peripherally on lower and upper limbs.[1,2,3] PG has been associated with several systemic diseases including ulcerative colitis, Chrohn's disease, Rheumatoid arthritis, polyarthritis, monoclonal gammopathy and myeloproliferative disease.[1,2,3]

We report a case from our hospital. A 17-year-old boy presented at the Plastic Surgery unit, U.M.T.H with a 10-year history of extensive scalp ulcer. According to anamnesis, it started as a nodule at the vertex of the head which was painless but itched occasionally. The nodule increased in size and four months later ulcerated suddenly. The scalp ulcer increased in size progressively and almost the whole scalp was involved within one year of diseases course (Fig. 1). The patient used traditional medicaments (both oral and topical) with no improvement. About one year before presentation he was seen at another

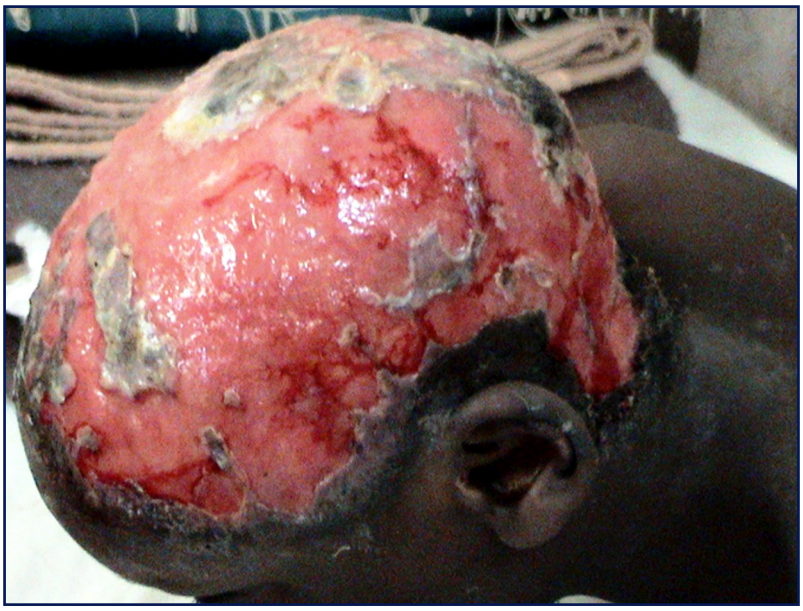

Figure 1

Extensive ulceration of the scalp in the course of pyoderma gangrenosum. The ulcer healed with scarring alopecia as residue.

hospital, where skin grafting of the ulcer was done. There was initial healing, but within 6 months of the grafting the whole skin graft was lost. On examination, the scalp almost entirely ulcerated. The ulcer was associated with purulent foul-smelling discharge and had necrotic floor with raised indurated grayish margins. There was no peripheral lymphadenopathy. Systemic examination was essentially normal.

Laboratory abnormalities were: WBC = 10.5 X 109/l, PCV = 0.28, ESR = 100 mm/hr. Wound swab showed no bacterial growth after 72 hours incubation, and no fungal infection. Histology of biopsy of the ulcer shows features of chronic non-specific inflammation.

Initial treatment given were antibiotics (amoxicillin clavulanate and metronidazole), haematinics and daily wound dressing with honey. Despite the treatment, the ulcer progressed in size over subsequent months, to involve the whole scalp. After the diagnosis of pyoderma gangrenosum was established, the patient was placed on prednisolone 40 mg daily, methotrexate 15 mg weekly, and ciprofloxacine 500 mg bd, with a dailynatural honey dressing topically applied to the scalp ulcer. The indurated elevated ulcer margins flattened and the ulcer healed progressively. Within 16 months of commencing this new treatment the ulcer healed completely. The dose of prednisolone was tapered. On oral prednisolone 25 mg daily, eight months after discharge the patient experiences recurrent ulceration of about 1 to 2 cm in diameter on the vertex.

Scalp is an unusual location for pyoderma gangrenosum, with only few cases reported worldwide.[4] Most of these patients were adults, 42-78 years of age and most of them responding well to either corticosteroids, cyclosporine A or other types of immunosupression.[4] There are historical reports of pyoderma gangrenosum of the scalp in adolescent patients with dark skin phototypes.[5] Almost all these patients had a severe systemic diseases or malnutrition and anemia.

In pyoderma gangrenosum pathergy (occurrence of the lesion at sights of trauma or other skin rash) occurs in at least 20% of patients.[6] The disease usually begins with an acute phase of necrotic pustule or furuncle and can evolve to a large and deep necrotic ulcer with violaceous border and a surrounding halo of erythema.[7] The irregular border is elevated and redish or purplish and undermined. Acute onset are usually associated with considerable toxicity and fever. The course extends over several weeks and months and the growth of ulcer may be rapid, involving large areas of the body within a few days, or indolent and slow.

Our case had a long history before presentation, after seeking treatment from natural medicine and traditional health healers without success. Additionaly unsuccessful skin grafting was performed, which might have additionally caused a pathergic reaction. After adequate therapy, the patient developed a scalp scar, reasembling scarring alopecia, and continues to have recurrent small island of ulceration on the vertex eight months after discharge from the hospital despite taking 25 mg prednisolone tablets daily. This case shows an unusual cause of scarring alopecia.

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