CLINICAL IMAGES

Pyoderma gangrenosum associated with chronic polyarthritis

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A 58-year-old woman presented to our emergency department with painful ulcers on the right side of her neck and on her left elbow. The ulcers, which had begun after minimal trauma, had increased in size over three weeks. Although she had been taking oral broad-spectrum antibiotics for 10 days, there was no evidence of improvement. She had chronic polyarthritis, which had been treated with methotrexate for two years. Substantial improvement of the polyarthritis had resulted in end of the methotrexate therapy two months before the development of the ulcers.

Physical examination showed ulceration of the skin and deep tissue necrosis with exposed sternocleidomastoid muscle, surrounded by erythematous infiltration and edema (Figure 1). The wound on the patient's left elbow showed extensive necrosis and ulceration of the skin with undermined violaceous borders. Results of microbiological analyses of swab samples and wound cultures were negative for pathogens. A biopsy specimen of the skin taken from a border showed massive neutrophilic inflammation that was consistent with pyoderma gangrenosum.

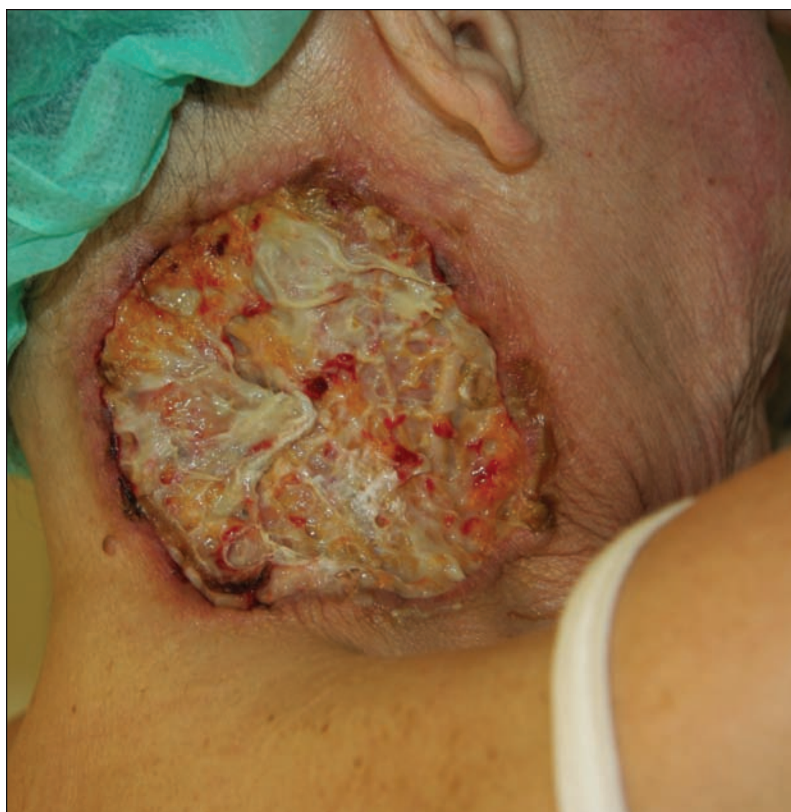

Figure 1: The neck of a 58-year-old woman showing deep necrosis and ulceration. The ulcer is about 7 cm in diameter with undermined edges and is surrounded by erythematous infiltration and edema.

Pyoderma gangrenosum is an ulcerating disorder of the skin with sterile neutrophilic inflammation that may be seen in up to 5% of patients with chronic ulceration of the legs.[1] Typically painful, it is frequently triggered by mechanical alterations, such as débridement or surgery. It is often associated with underlying diseases such as inflammatory bowel disease, neoplasms or rheumatic disorders. The presence of rapidly progressive ulceration after trauma with negative results on microbiological analysis should prompt consideration of this diagnosis.

Because it is a life-threatening condition if untreated, pyoderma gangrenosum requires rapid diagnosis, identification of any underlying disease and start of systemic and topical immunosuppressive therapy.[2,3] The prognosis is more favourable in patients without underlying disease. Surgical treatments, such as wound débridement or skin grafting, may provoke progression of the disease and should be performed only with sufficient immunosuppressive therapy.[4] After treatment with oral prednisone and topical tacrolimus, our patient's severe pain quickly resolved and the ulcers healed within a few weeks.

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