



**ORIGINAL RESEARCH PAPER**

**Surgery**

**AN UNUSUAL CASE OF PYODERMA GANGRENOSUM ULCER**

**KEY WORDS:** Pyoderma Gangrenosum; Skin Ulcer; Differential Diagnosis.

<b>Izzo L*</b>	Department of Surgery "Pietro Valdoni", University "La Sapienza" Rome, Italy*Corresponding author
<b>Izzo S.</b>	Department of Surgery "Pietro Valdoni", University "La Sapienza" Rome, Italy
<b>Codacci Pisanelli M</b>	Department of Surgery "Pietro Valdoni", University "La Sapienza" Rome, Italy
<b>Messineo D</b>	Department of Radiological, Oncology and Pathology Sciences, "Sapienza" University, Rome, Italy.
<b>D'Andrea V</b>	Department of Surgical Sciences, 'Sapienza' University of Rome, Italy
<b>Pugliese F</b>	Department of Surgery "Pietro Valdoni", University "La Sapienza" Rome, Italy
<b>Izzo P</b>	Department of Surgery "Pietro Valdoni", University "La Sapienza" Rome, Italy

**ABSTRACT**

Pyoderma gangrenosum (PG) is a rare dermatosis with uncertain etiology, often difficult to diagnose and associated to inflammatory bowel disease. Skin ulcers form rapidly and progressively, most commonly the pretibial region. There is no standard treatment or simple algorithm for the choice of therapy. We describe a clinical case of a giant ulcer of the abdominal wall caused by pyoderma gangrenosum in a patient with ulcerative colitis.

Pyoderma gangrenosum (PG) is a dermatological condition characterized by painful, sterile, necrotizing ulcerations which commonly the pretibial region as well as peristomal sites.<sup>1</sup> The incidence is 0.3–1.0/100,000 and occurs between the ages of 20 and 50 years with women being more often affected than men.<sup>2-3</sup> PG makes up approximately 1–3 % of extraintestinal manifestations in IBD patients (Inflammatory bowel disease IBD : ulcerative colitis, Crohn's disease). There is evidence for PG to be considered among the group of autoinflammatory diseases. There is no uniform therapeutic standard, but new therapeutic approaches, the "targeted therapies", have higher efficacy and a lower rate of side effects than conventional immunosuppressants.<sup>5</sup>

**CASE REPORT**

A 66-year-old woman with an history of ulcerative colitis, was admitted to our department of Surgery due a giant painful ulcer on abdominal wall of 12 cm x 22 cm (Figures 1-2). She was initially treated in a primary care center with antibiotics and debridement of the ulcer. Blood investigations showed a white blood cell count of 15.000 cells/mm<sup>2</sup>, C-reactive protein level of 115 mg/l. Wound swab was taken, the necrotic patch was debrided totally, and tissue and blood culture samples were sent. Empirical antibiotic therapy was started as per hospital protocol. All the culture reports were sterile. A dermatology opinion was sought and a clinical suspicion of pyoderma gangrenosum was made which was confirmed with the tissue biopsy. The patient was started on oral steroids under antibiotic coverage, and the daily dressing was done. The ulcer stopped spreading further, and she improved significantly (Figures 3-4). She is now kept on regular follow-up.

**DISCUSSION**

Pyoderma gangrenosum is a diagnosis of exclusion and can only be made after common causes of ulcers such as infection and malignancy have been ruled out.<sup>6</sup> Clinically, it can be mistaken as necrotizing fasciitis, hidradenitis suppurativa, or herpes infection and is unresponsive to antibiotic therapy.<sup>7-8</sup> The mainstay of treatment is long-term immunosuppression.<sup>11</sup> However, response rates are highly variable, and only a sub-group of patients actually benefit from treatment. Corticosteroids are the most commonly used systemic agents for the treatment of PG, and are usually given at a dose of 0.5–2 mg/kg every day, depending on disease severity.<sup>12-13</sup> A subgroup of patients, who only insufficiently

respond to conventional immunosuppressants, may respond to novel therapies, such as TNF  $\alpha$  inhibitors, and the "target therapies", such as uste-kinumab, anakinra, and the monoclonal IL-1  $\beta$  antibody cana-kinumab and possibly even to IL-17 antagonists.<sup>10</sup>



**Figure 1**



**Figure 2**



**Figure 3**



**Figure 4**

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