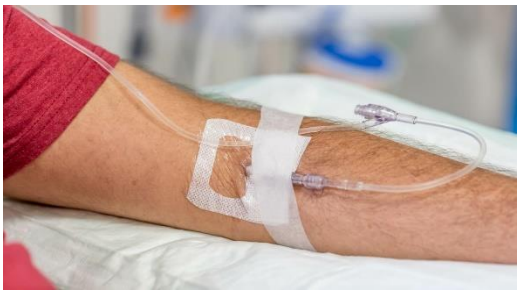
Intravenous Immunoglobulin Shows Efficacy as Adjunctive Therapy for Treatment of Pyoderma Gangrenosum

Key Takeaways

- IVIG therapy for PG demonstrated improved response rates over time, with 18.8% complete and 39.1% partial responses after six months.
- Treatment-related adverse events included thromboembolic events and acute kidney injury, affecting 10 patients.
- Higher IVIG doses showed a trend towards better efficacy, though not statistically significant.
- The study suggests potential benefits of IVIG as a first-line therapy, despite its cost and logistical challenges.



Many patients receiving intravenous immunoglobulin therapy for their pyoderma gangrenosum experienced complete or partial responses.

Treatment with IVIG leads to high responses 6 months following the initiation of therapy.

Adjunctive therapy with intravenous immunoglobulin (IVIG) in patients with pyoderma gangrenosum (PG) was found to be well-tolerated and led to positive effects, especially in patients with refractory PG, according to new study results published in the American Journal of Clinical Dermatology.1

PG, a rare condition, causes painful ulcers to form on the skin of patients, often on their legs. Systemic therapies that have been recommended to treat PG, including glucocorticoids, biologic therapy targeting interleukins, and IVIG. Many patients have an inadequate response to their treatment, which necessitates adjunct therapy, often in the form of IVIG.1,2

Other analyses have been conducted to evaluate IVIG's effectiveness in this patient population. Gan et al conducted a systematic review and meta-analysis that included 101 patients across 45 studies, finding a complete or near-complete resolution of PG following IVIG treatment in 57 cases.2

The aim of the current trial, a multi-center, retrospective analysis of patients with PG who were treated with IVIG, was to analyze response rates and safety of the treatment, especially in patients with refractory PG. Further, the study authors sought to identify predictive factors for response to IVIG therapy, owing to the cost-intensive nature of the treatment.1

In total, 81 patients were included in the study. Every 4 weeks, IVIG was administered to patients over 3 to 5 days per cycle. At the commencement of IVIG, the mean age of patients was 62.6 years. Many patients (28, 34.6%) had more than 1 part of the body affected with PG-related ulcers. One month following treatment initiation, response data was available for 75 patients.1

Complete response (CR), defined as a healing tendency in a patient's lesion, was observed in 16 (21.3%) patients, while 21 (28.0%) showed a partial response, indicating that the progression of their lesion was stopped. A total of 38 (50.7%) patients showed no response, meaning a worsening of their lesion was observed. At the 3-month point following treatment initiation, 19 (25.3%) and

28 (37.3%) of patients showed a complete or partial response, respectively, while 28 (37.3%) had no response, according to the investigators.1

Finally, after 6-months—for which data was available from 69 patients—13 (18.8%) and 27 (39.1%) of patients had a complete or partial response respectively. No responses were observed in 28 (40.6%) patients. These data indicate that response rates improved as more months passed from the treatment initiation point.1

Regarding treatment-related adverse events (TRAEs), in total, 14 were identified in 10 patients. Three patients had a thromboembolic event, while 3 had an acute kidney injury and 2 had reactions to their infusions. Other less serious AEs reported featured fatigue, abdominal pain, and headache.1

The relationship between clinical factors of the patients and their treatment response was also analyzed. The investigators found that a higher dose of IVIG tended to be more efficient but was not statistically significantly related to treatment response. Having undergone numerous previous therapies was negatively associated with response rate, while patients with solid malignancies or hemato-oncological disease tended to have higher response rates.1

Importantly, those interpreting these results should note the negative selection bias of patients, who did not have responses to first line and often second-line treatments. The investigators postulate that the use of IVIG as a first-line therapy could led to better response rates; however, IVIG is a cost-intensive treatment, often impacted by product shortages, and typically requires hospitalization.1,3

“The reluctance to use other immunosuppressive therapies in cancer patients, and the potentially better response, support the value of IVIG for PG treatment in this setting,” the study authors said. “However, it remains crucial to treat the underlying malignancy, as patients have been cured from their PG with the treatment of particularly hematologic malignancies.”1

REFERENCES

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