

Efficacy of Adsorptive Cytapheresis in the Treatment of Neutrophilic and autoinflammatory dermatoses: a case series.

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Introduction

Neutrophilic and Autoinflammatory Dermatoses are a group of skin diseases characterized by neutrophil-mediated inflammation without a primary infection. They share pathogenetic mechanisms linked to dysregulation of the innate immune system and may be associated with systemic diseases.

Adsorptive Cytapheresis (AC) can be considered as an emerging strategy for severe or treatment-resistant cases. It controls inflammation by removing pro-inflammatory mediators, reducing cytokines like TNF- α , IL-1 β , and IL-6. It also limits tissue damage by eliminating hyperactivated neutrophils. Its immunomodulatory effect restores balance, reducing autoantibodies and immune complexes, improving disease control

Methods

Case series of 4 patients affected by Pyoderma Gangrenosu, Hidradenitis Suppurativa, Acne Conglobata, Recurrent Forunculosis. Every one of them was treated by 12 to 15 times in a time range of 16 months. The duration of each single treatment is approximately one hour, using the Leucapher[®] equipment and LA 25[®] filter at a blood flow of approximately 30 ml/min.

Results

All patients exhibited good clinical response, with a significant improvement in skin lesions and quality of life improvement. A particularly significant aspect emerging from the study was that RBC values remained virtually unchanged throughout the entire treatment period, highlighting the absence of anemia in treated patients (Figure 1).

This finding further reinforces the safety of leukocytapheresis as a therapeutic approach with no relevant adverse effects.

Conclusion

Neutrophilic and autoinflammatory dermatoses represent a group of disorders with a broad spectrum of clinical manifestations and associations with systemic diseases. AC is emerging as an innovative option for severe or refractory cases, providing a targeted approach to removing inflammatory mediators and modulating the immune response. Further investigation into the pathogenesis and the development of targeted therapies, particularly through the use of biological agents and therapeutic apheresis, represent a possible direction for more effective management of these conditions.

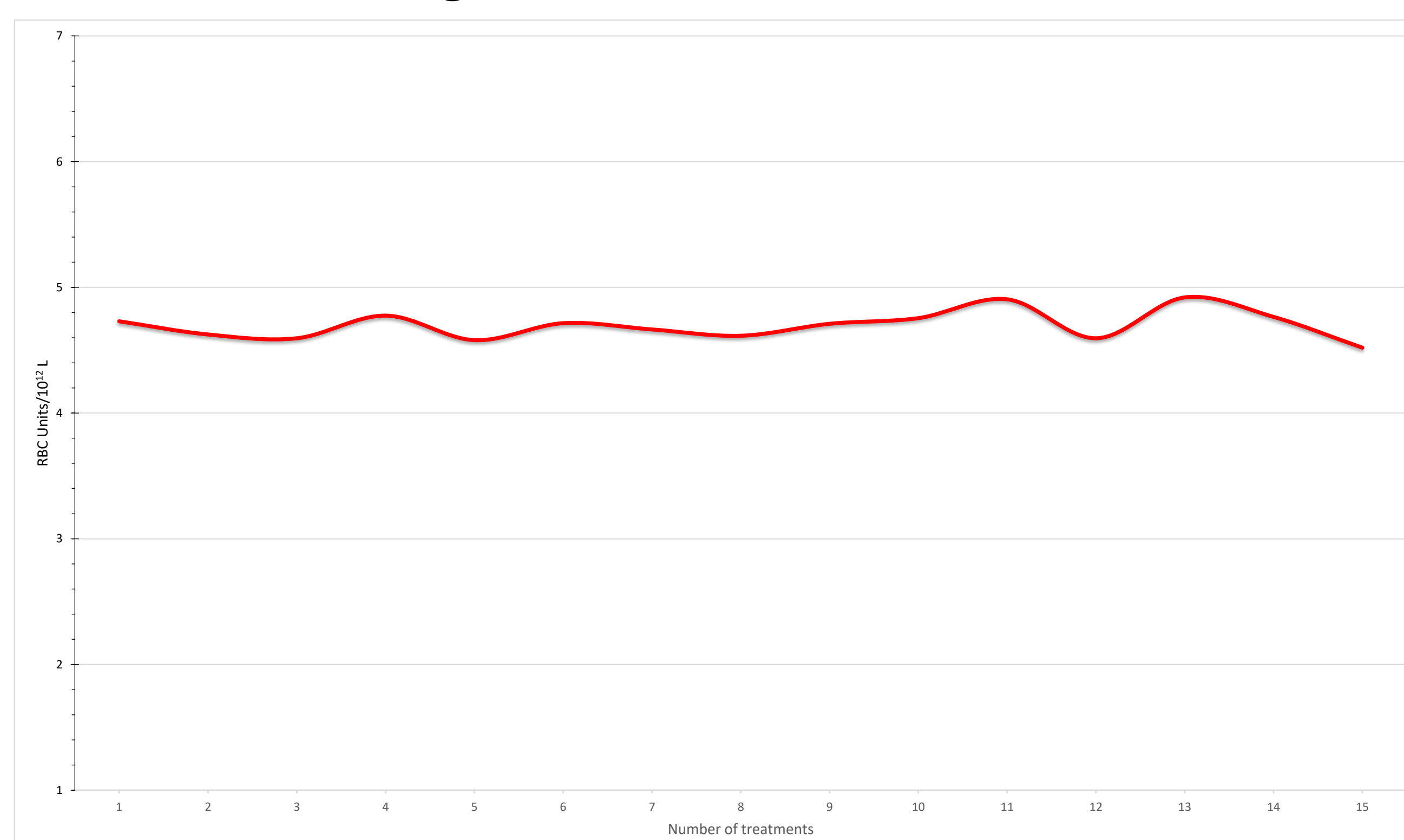


Figure 1