

TITLE : “Breaking the Barrier of Non-Healing Ulcers through Procedural Interventions”

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INTRODUCTION

- Chronic leg ulcer (CLU) is defined as a leg wound persisting >3 months despite appropriate treatment or unhealed after 12 months.
- Affects ~1% of adults, 3.6% of those >65 years, and up to 5% over 80 years.
- Common causes include venous insufficiency, arterial disease, and neuropathy; less commonly, metabolic, hematological, or infective disorders.
- Risk Factors includes age, diabetes, stroke, cardiovascular and peripheral vascular diseases, cognitive impairment, malnutrition, low socioeconomic status, trauma and neurological conditions.
- Management requires a multimodal approach: compression therapy, leg elevation, wound care (debridement, antiseptics, antibiotics), advanced options like hyperbaric oxygen therapy, sclerotherapy, platelet rich fibrin dressing, surgery, or skin grafting.

CASE REPORTS

- Case 1
- Middle-aged male with 3-year non-healing leg ulcers and comorbidities: diabetes, varicosities, cognitive impairment, foot deformities.
- Prior treatments (antibiotics, silver/collagen dressings, debridement, iPRF, zinc oxide, grafting) failed.
- Staged approach with foam silver dressings and HBOT twice weekly was started. Ulcer size, pain, and exudate reduced with improved mobility and quality of life.
- Case 2
- A 55-year-old male known case of psoriasis developed a deep traumatic leg ulcer after a fall into sewage.
- The ulcer was deep without slough, making conventional dressings difficult.
- Wound bed was prepared and autologous PRF membranes applied every weekly.
- Rapid granulation and epithelialization occurred with reduced depth and no complications.

CASE 1



CASE 2



DISCUSSION

- Chronic leg ulcers show poor vascularity, hypoxia, and recurrent infection, leading to delayed healing.
- Biofilm formation makes them resistant to antibiotics and standard dressings.
- Silver foam dressings release silver ions with broad antimicrobial action, reduce bioburden, and control exudate while maintaining a moist wound bed.
- They promote cell migration and granulation by providing an optimal healing environment. HBOT improves tissue oxygenation, stimulates angiogenesis, collagen deposition, and fibroblast activity.
- PRF delivers concentrated growth factors in a fibrin matrix, serving as a biologic scaffold.
- It promotes granulation, angiogenesis, and epithelialization, especially in deep ulcers where dressings are insufficient.
- PRF is autologous, safe, cost-effective, and can be repeated every 5–7 days until healing is achieved.
- Chronic ulcers are often refractory to monotherapy, and individual ulcers may respond differently to specific modalities, highlighting the need for patient-specific treatment choices.