

## Fat grafting associated with negative pressure wound therapy

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### Abstract

**Purpose:** To present case series of fat grafting (FG) associated with negative pressure wound therapy (NPWT) in the treatment of complex wound on the distal third of the lower limb.

**Case series (n=10):** The first case is about a 59-year-old patient with chronic left tibial osteomyelitis since childhood underwent extensive debridement of the distal tibial diaphysis. Distal necrosis occurred in the fasciocutaneous flap used as the primary bone coverage. After flap debridement, the case was resolved with FG, directly on the exposed bone and biomaterial, associated with NPWT. Three weeks after the first FG session over bony tissue, 100% granulation was achieved with NPWT. After one session of FG associated with NPWT for three weeks, the wound healed with good coverage of the ankle and metal implants. **Discussion:** The association of FG and NPWT is not known in the clinical practice. Accelerated granulation tissue formation was observed, filling extensive and deep defects, even with infected bone and biomaterial exposure. The use of autologous fat grafting for soft tissue reconstruction following major extremity trauma is a paradigm breaker. Low morbidity and no complications were observed with the use of FG associated with NPWT. When the grafted fat was associated with the NPWT, it seemed to behave as a true autologous biological matrix with large amount of cells.

### Biography:



Gustavo Moreira Souza has completed his fellow master degree at the age of 44 years from the Postgraduate Program in Translational Surgery, Division of Plastic Surgery, Department of Surgery of the Federal University of São Paulo (UNIFESP). He is a member of the Brazilian Society of Plastic Surgery, and works as a plastic surgeon at Hospital Felício Rocho and at Hospital das Clínicas of the Federal University of Minas Gerais (HC-UFMG), Brazil.

He has published twelve papers in different areas of plastic surgery and craniofacial surgery. which won the first place in the Surgical Innovation and Creativity Award of the 56<sup>th</sup> Brazilian Plastic Surgery Meeting (Brasília,2019).

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