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INTRODUCTION: Cutaneous ulcers of the lower limbs are a challenge for physicians worldwide.1 Our aim was to investigate in a randomized-controlled study the efficacy and safety of a new sequential protocol for the management of non-healing chronic ulcers of venous etiology affecting the lower limbs. We also aimed to validate the angiogenic pro-healing effect of the nanofat-timolol association in the chick embryo chorioallantoic membrane (CAM) assay.

MATERIALS AND METHODS: Based on a power analysis, 64 patients were recruited, suffering from chronic ulcerative lesions of the lower limbs of venous etiology, presenting comparable mean wound area in cm² and mean Wound Bed Score values. These 64 patients were randomized to either the case group or the control group. Patients in the case group were treated with enzymatic debridement (Nexobrid™), nanofat infiltration/topical application and following daily timolol application. Patients in the control group were treated with the SOC.

Outcomes were assessed by wound area tracing using the histogram planimetry method at baseline, 15 days and 30 days from treatment and at the 3 and 6 months follow-up. Any adverse events were recorded at each clinical visit. Discomfort, pain and patient satisfaction were assessed through VAS.

RESULTS: The improvement in % of area reduction was statistically significant in the case group vs control group. The mean area reduction persisted or improved at 6 months and no ulcer tended to recur in the case group. VAS scale documented significantly superior patient satisfaction in case vs control group. Mild pain in the first post-operative days was the only recorded adverse event in the case group.

CAM study documented a significantly superior angiogenic response of timolol+nanofat when compared to isolated nanofat or timolol.

DISCUSSION: Cutaneous ulcers of the lower limbs afflict a large portion of the population with high costs for the health system.1 Numerous therapeutic protocols have been proposed in the literature with considerable evolution over the years, with inconsistent and generally unsatisfactory results.1

Given the encouraging results of both the stromal vascular fraction and beta-blockers in acute and chronic wound healing,2–5 and our promising data on the enzymatic product Nexobrid™ in debriding chronic ulcers (in press), we designed this study to assess the potential synergistic effect of such agents. Further controlled data will be needed to confirm our evidence.

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Pudendal Nerve Blocks for Vaginoplasty in Gender Confirmation Surgery

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INTRODUCTION: General (GA) and spinal anesthesia (SA) are common and effective ways to control pain during pelvic surgeries, such as vaginoplasty for gender
confirmation surgery (GCS). Many surgeons working in this field are seeking different modalities to improve postoperative pain control. Higher healthcare costs and poor patient satisfaction may result from inadequate pain control in the immediate postoperative period. Furthermore, GCS patients are more susceptible to develop postoperative deep vein thrombosis (DVT) due to their continuous use of hormonal therapy as there is a lack of evidence for benefits of preoperative holding of hormonal therapy. Therefore, early ambulation is especially important in this patient population. The aim of this study is to evaluate the outcomes after pudendal nerve blocks (PNB) as an adjunct to general anesthesia during genital GCS surgery.

PATIENTS AND METHODS: This is a prospective, randomized, single blinded control trial for patients who underwent male-to-female (MtF) genital GCS. Patients received either general anesthesia (GA group) only or general anesthesia with bilateral pudendal nerve blocks (PNB group). The blocks were performed at the end of the case by the surgeon via anterior approach to the perineum. Postoperative pain was managed by a multimodal pain management including scheduled acetaminophen and oral oxycodone as needed. A numeric pain scale (0 to 10) was used to assess pain at different time points. Consumption of oral analgesics, time to ambulate, complications, and patient satisfaction were recorded and compared between the groups.

RESULTS: From February 2017 to December 2017, twenty patients were included in the study. The PNB group (n=10) required a lower average of total oral oxycodone during hospitalization compared to the GA group (n=10) (65 mg versus 375 mg of oral oxycodone; p < 0.05). The average numeric pain rating for the first 6 days for the PNB group was lower than that of the GA group (1.9 versus 5.5; p < 0.05). More patients from the PNB group were able to ambulate on postoperative day 1 (80% versus 30%; p < 0.05). A higher percentage of patients from the PNB group reported higher satisfaction regarding their postoperative pain management compared to the GA group (4.6 versus 2.5; p <0.05). One patients from the PNB group experienced pain at injection site that resolved with oral analgesic.

CONCLUSION: Based on these results, we believe that pudendal nerve blocks are safe, efficacious and effective adjuncts to general anesthesia. The minimal complications and promising results regarding pain control and patient satisfaction make this technique a powerful tool during genital confirmation surgery.

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Degloving Injuries of the Extremity: A Systematic Approach to Reconstruction

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BACKGROUND: Degloving soft tissue injuries (DSTIs) of the extremities are avulsion-type injuries. These injuries leave significant soft tissue defects which compromise the integrity of the extremity. Reconstruction of DSTIs is challenging due to their variable extent. A systematic approach to the reconstruction of DSTIs is not established. We propose a comprehensive protocol for the reconstructive management of extremity DSTIs.

METHODS: A review of the literature regarding DSTIs was completed. In addition, a retrospective study was conducted including all patients who sustained DSTIs of the extremity requiring reconstruction over a 6 year period.

RESULTS: A total of 36 extremity DSTIs were identified. Mean patient age at the time of injury was 45 and patients required an average of 5 operations. All injuries underwent debridement and 83% underwent skin grafting. A dermal regeneration template (DRT) was used in 42% of patients. Ninety-two percent of patients had negative pressure wound therapy (NPWT) utilized in their DSTI care. Twenty-eight percent of patients required flap reconstruction. Four patients required amputation.

CONCLUSION: DSTIs are complex injuries that frequently require multiple operations and the application