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Introduction:
Evidence for single-use Negative Pressure Wound Therapy (sNPWT) in managing surgical incisions is demonstrated across surgical indications. However, there is limited evidence in chronic wounds. Recently, a randomized clinical trial demonstrated superior clinical outcomes for sNPWT compared to tNPWT in lower extremity ulcers (LEU). The aim of this study was to examine wound closure in sNPWT and tNPWT in chronic LEU patients from a real-world evidence perspective.

Methods:
This retrospective cohort study was conducted by identifying diabetic foot or venous leg ulcers from an outpatient wound clinic EMR from 2014 to 2018. The treatment period began with the first application of NPWT and continued until the LEU closed or the patient was lost to follow-up. Patients were excluded if they received both types of NPWT; had missing clinical information; and had their NPWT treatment started more than 60 days from the start of the wound episode. Patients were matched on demographic characteristics, comorbidities and initial wound surface area using propensity score matching. Wound closure was reported descriptively and estimated using multiple logistic regression analysis controlling for days before NPWT treatment start.

Results:
One-to-one propensity score matching method matched 146 sNPWT to tNPWT patients with initial surface area of 10.93 cm2 and 10.71 cm2, respectively. Descriptive analysis estimated that sNPWT improved wound closure (46.58% vs 34.93%; p-value=0.0429) while regression analysis estimated sNPWT wounds were 89% more likely to close (OR=1.89; 95% CI=1.02-3.51; p-value=0.0423). Before matching, there were 199 sNPWT and 590 tNPWT patients with mean initial surface area of 9.65 cm2 and 28.26 cm2, respectively. Still, descriptive analysis estimated that sNPWT had statistically significant higher wound closure rate (51.26% vs 38.47%; p-value=0.0016).

Conclusions:
In chronic lower extremity wounds sNPWT validated the results of the previously published RCT in demonstrating a higher wound closure rate in a real world setting to tNPWT.

Keywords: Lower Extremities Ulcers, Singe-use Negative Pressure Wound Therapy, Traditional Negative Pressure Wound Therapy, Wound closure rate

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EFFECTIVENESS OF LARVAL DEBRIDEMENT THERAPY IN THE TREATMENT OF COMPLEX WOUNDS: A SYSTEMATIC LITERATURE REVIEW

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3. Chumpon, W. et al (2014). Maggot therapy for chronic ulcer: A retrospective cohort and a meta-analysis. Asian Journal of Surgery 37,138-147.

Background and Aims:
Larval Debridement Therapy consists in placing sterile live larvae into the wound with the goal of removing devitalised and necrotic tissue without adding any trauma. Albeit a decrease in utilizing this therapy, several studies point to the same direction. The main goal is to verify the efficiency of the Larval Debridement Therapy in complex wounds, aiming for an improvement of the standards of care.

Methods:
Systematic review of databases of EBSCOhost-Research Databases, PubMed® Central and SciELO, of studies published between January 2014 and May 2019, in English, Portuguese and Spanish. The studies assessed using the Joanna Briggs Institute (JBI) critical appraisal instruments.

Results:
Supporting evidence founded that the Larval Debridement Therapy competently reduces the debridement time and the devitalised area. It proved to be a debridement therapy equally, or even less, painful than conventional therapies and is associated with lower infection rates.

Conclusion:
The evidence found shows that Larval Debridement Therapy is efficient in the treatment of complex wounds, promoting a faster wound healing in comparison with other debridement therapies. The results of the different studies are not in accord, for which it is advisable to proceed with a review of the literature available based on recent randomized controlled trials.

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VACUUM, MINIMALLY INVASIVE, AMBULATORY EPIDERMAL GRAFT METHOD USING CELLUTOME ®, IN TOTAL COVERAGE OF THE TISSUE DEFECT OF THE ELBOW JOINT. REVIEW OF LITERATURE. CASE DESCRIPTION.

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For many patients skin grafting and wounds of different etiology is the treatment of choice. In addition to classical techniques using full or intermediate thickness, there is an alternative in the form of vacuum, thermal, epidermal micrograft using the CelluTome ™ system.

The paper presents a description of the use of innovative, minimally invasive, painless, autologous sampling technique and implantation of small microspheres obtained from the epidermal - skin border for traumatic supply and loss injury of the area around the elbow joint.

The applied therapy, through a molecularly different mechanism of healing, allowed the final and complete closure of the defect, while maintaining the intact function of the joint, with the fully acceptable cosmetic effect of the intervention area and the almost invisible place of material collection.

The applied procedure did not require anesthesia and involvement of the operating block, and further outpatient supervision of the patient, wound and donor site was not complicated.

PO283 – ID 952 E

FFICACY AND SAFETY OF CO2 LASER IN WOUND BED DEBRIDEMENT OF CHRONIC LEG ULCERS

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Background and aim:
Chronic wounds are an important medical health problem, affecting patients quality of life.The CO2 laser represents one of the new proposals in the field of tissue repair. The aim of study is to evaluate efficacy and safety of CO2 laser and light emitting diode in wound debridement and tissue biostimulation.

Methods:
We enrolled 20 patients affected by chronic leg ulcers, resistant to standard treatment. We created two groups A and B, 10 patients were treated with the laser and advanced dressings; 10 patients treated with surgical debridement and advanced dressings. Wound assessment was performed by using 3D imaging system (Star Aranz™), the VAS scale 1 and EQ-5D-5L quality of life 2, twice a week for 6weeks.

Results:
After 6 weeks of the treatment the Group A showed a 70% reduction of fibrin, a wound size reduction of more than 50%, and a significant improvement of quality of life. At the end of treatment the Group B showed a 40% reduction of fibrin and a wound size reduction of 20%.

Conclusions:
According to our preliminary data, the laser CO2 device is a promising therapeutic strategy in terms of wound healing promotion and patient quality of life improvement. The laser treatment was considered safe and tolerable during the study period.

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THERAPEUTICAL USE OF SILVER IN WOUNDS - DIFFERENT SILVER FORMS, PHARMACOLOGICAL MECHANISMS AND EFFICACY

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Background and aim:
Silver is known for its antibacterial effects and has been used in medicine since ancient times. In last years many researches proving its effectiveness against wide spectrum of microorganisms have been done and its role in