

# Approach towards treating a hyperexudative ulcer in an area with muscle loss, using Negative Pressure Therapy in the Complex Nursing Unit of a Prison

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Text received: 10/01/2025

Text accepted: 20/01/2025

## CLINICAL CASE DESCRIPTION

Complex hyper-exudative ulcers from deep layers require a reduction in exudate to bring about scarring and prevent complications from arising<sup>1,2</sup>.

We present the case and progress of a hyper-exudative ulcer with muscle loss and dehydrated fine epidermis that was treated at the Complex Nursing Unit<sup>3</sup> (Figure 1).

Male patient of 33 years of age who entered prison with a history of a deformity caused by a right half-open diaphyseal tibial-peroneal fracture that took place in the Dominican Republic that required osteosynthesis equipment 5 years before sentencing and which left him with a chronic limp. When examined, fine dehydrated epidermis was observed. Patient was referred to the Complex Wounds Consultancy after finding that he presented exudative wounds in the affected area after being struck by a blunt object, with no signs of improvement during treatment received at the prison module nursing unit<sup>4</sup>. One of the ulcers presented a communicating channel to the tibial periosteum that required antibiotics<sup>2</sup> (Figure 1).

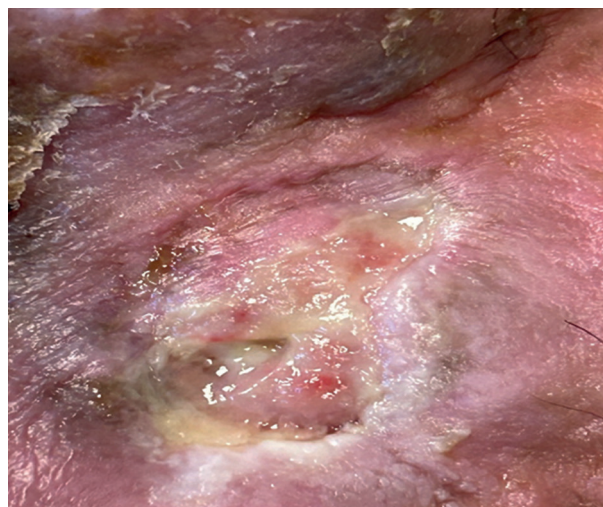


Figure 1. Hyper-exudative ulcer and infiltration channel with cannula up to periosteum with hypochlorous acid and sodium hypochlorite (Microdacyn®).

## PROGRESS

Exudative ulcer treated at the Complex Nursing Unit of Brians-2 Prison for 7 weeks. Occlusive

treatment TIME was used along with extra alginate every 48 h. without success. The decision was then made to apply negative pressure therapy (NPT), (SIMO®)<sup>1-3</sup>, plus deep infiltrations with cannula up to the periosteum with hypochlorous acid and sodium hypochlorite (Microdacyn®)<sup>2</sup> (Figure 1), along with an enzymatic regulatory non-adherent mesh of medical-grade buckwheat honey, (Principelle IF®)<sup>2-3</sup> (Figure 2), on the surface of the ulcer bed with pressurised sealing occlusion dressing<sup>1</sup> (Figure 3).

After infiltration with Microdacyn® and a cannula up to the periosteum and application of medical-grade

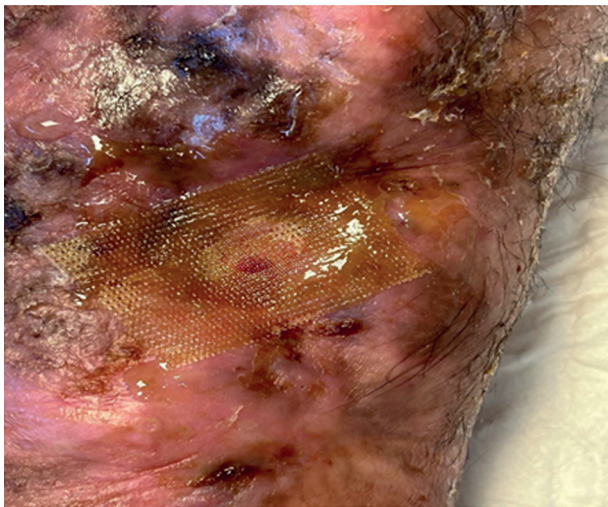


Figure 2. Anti-adherent mesh with medical-grade buckwheat honey (Principelle IF®).



Figure 3. Pressurised-seal dressing.



Figure 4. Discharge after intervention at the complex nursing unit.

buckwheat honey with pressurised NPT dressing, the exudate was brought under control and the dressings could be scheduled to twice a week for the first 15 days and then once a week for the following 4 weeks<sup>1,3</sup>. The epidermis consolidated and the patient was discharged from the unit and referred to the prison module nursing consultancy (Figure 4).

## FINAL COMMENTS

Exudative ulcers require advanced techniques<sup>1</sup>, even surgery, to achieve definitive scarring<sup>2</sup> and prevent complications from arising. However, when such techniques are carried out at specialised units<sup>3</sup>, such as the one described in this case, they can bring about wound healing and the patient's discharge in a short period of time<sup>3</sup>. We recommend referring complex cases to this type of unit, where there should be nursing staff with training in complex wound treatment at prison primary care units.

## CORRESPONDENCE

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