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Povidine-Iodine Gauze Pseudo-tumor Technique in the Treatment of Pressure Sores

A Novel and Cost-Effectuve Modification

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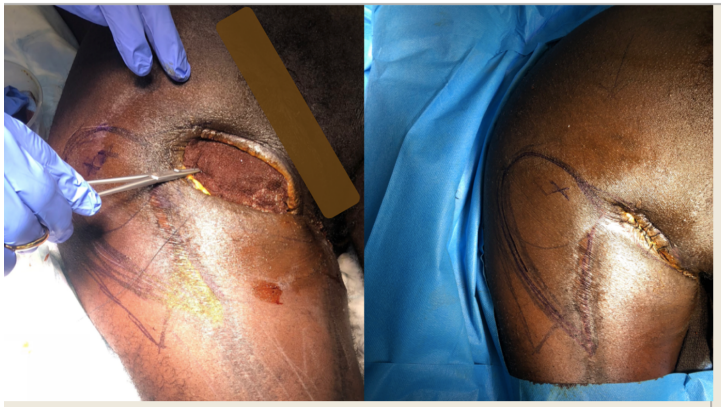


Figure 1. Insertion of povidone-iodine soaked gauze into defect and cavity closure

01. Introduction

- **Definition of Pressure Sores:**
 - Localized injuries to the skin and underlying tissue due to prolonged pressure on bony prominences.
 - Also known as bedsores or pressure ulcers.
- **Challenges:**
 - Extremely painful and difficult to heal.

02. Objective

- To describe what is also referred to as the "artificial tumour technique".

Overview

- Involves creating an artificial mound-like structure over pressure sores.

- Traditionally silicone was a popularly utilised material, but our cost-effective modification utilizes Povidine-iodine impregnated gauze.

03. Mechanism of Action

This technique has been widely practiced and has been known to redistribute pressure away from the affected area, It relieves pressure, reduces pain and promotes healing.

- **Cushioning effect**
- **Healing Promotion**
- **Stimulates blood flow**
- **Protective barrier**

Enhances oxygenation to the wound site, facilitating tissue regeneration. Moreover, it guards the pressure sore from further trauma and contamination.

04. Findings

- **Efficacy:**
 - Promising results in treating pressure sores, especially where traditional methods have failed.

- **Non-invasive Alternative:**
 - Offers relief and promotes healing without surgical intervention.

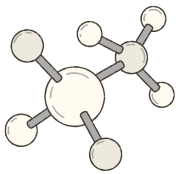
IMPORTANT!

The use of silicone moulding to achieve optimal surgical debridement was the latest technique put forward by Erba et al in 2008.

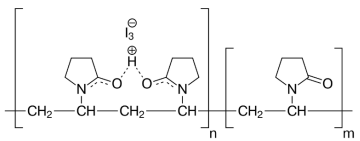
Figure 2. 'Capsule' containing gauze excised in entirety.

05.Technique description

The pseudotumour technique is not a new concept. The pseudo tumour technique is not a new concept. In its original description by Guttman in the early 1950s, the cavity was 'packed as tightly as possible with narrow ribbon gauze soaked in a brightly coloured antiseptic, usually Flavine or Flavazole, until the cavity is distended as much as possible. At the start of the procedure, the patient is placed in a prone position. The cavity is irrigated with saline. Medium to large X ray gauze swabs are soaked into povidone-iodine solution and packed into the cavity. [Figure 1] The cavity is then approximated over the swabs using 1/0 silk suture. [Figure 2] Surgical skin prep is then applied. The packed area is treated like a tumour and the 'capsule' containing the swabs is excised in its entirety [Figure 3] leaving behind healthy bleeding tissue. Bony resections are performed in the presence of radiologically confirmed osteomyelitis. Following haemostasis, the defect is subsequently filled with a flap over drains.



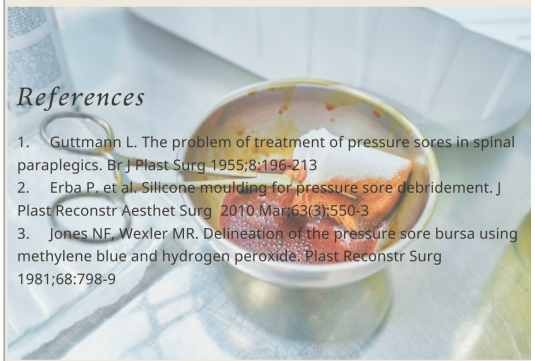
Povidone-iodine is a chemical complex of the polymer povidone (polyvinylpyrrolidone, PVP) and triiodide (I_3^-). It is synthesized by mixing the PVP polymer with iodine, allowing the two to react.



Structure of povidone-iodine complex.

06. Conclusion

- The Povidine-Iodine Gauze Pseudo-tumour technique is an innovative and cost-effective approach that shows significant promise in the treatment of pressure sores.



References

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