
Practices of Wound Management

The Art of Escharectomy

Associate Professor Sankar Nath Sinha

Wound healing is delayed in the presence of eschar as it results in a barrier against migration of epithelium and provides a medium for infection¹. Separation of slough can be expedited with the use of dressings such as hydrocolloid and, more effectively, by hydrogel². However, a more efficient method of removing eschar is by surgical excision. There is often some reluctance on the part of attending doctor to perform this procedure due to the fear of inflicting pain and damage to surrounding healthy tissue.

The following description is a step-by-step guide to performing escharectomy without deleterious effects to healthy tissue. It is mandatory to discuss the procedure and its benefit to the patient for an informed consent for escharectomy.

Equipment

Sterile tray containing:

- Tenotomy or fine pointed curved scissors
- Adson's toothed forceps
- No.3 scalpel handle
- Two small artery forceps

Associate Professor Sankar N. Sinha, MS, FRACS

*Discipline of Surgery
University of Tasmania
Royal Hobart Hospital*

*Telephone: (03) 62264890
Facsimile: (03) 62264760
E-mail: Sankar.Sinha@utas.edu.au*

Associate Professor Sinha has been awarded a Churchill Fellowship for 2001. He will visit the Herman Center for Wound Healing in Houston, Texas to further expand his knowledge of clinical advances in wound treatment.

Disposables:

- 5ml syringe
- 19G blunt aspirating needle
- 25G (5/8") hypodermic needle
- 1 per cent plain lignocaine
- No15 scalpel blade
- Sachet of normal saline
- Gauze squares
- Alginate dressings.

Procedure

- Gently wash the wound with normal saline.
- Slowly inject 1 per cent lignocaine with 25G needle at one edge of the eschar. The object is to infiltrate the fluid at the interface of the eschar and the granulating floor of the ulcer (Figure 1).
- Gradually advance and inject around the adjacent area to achieve complete infiltration under eschar to gently lift this off the ulcer floor.
- Hold one corner of the eschar with the Adson's forceps and make a small nick with the 15 blade sufficient enough to start excision with the scissors. With practice, one can do the entire excision either with the scalpel blade or scissors (Figures 2-5).
- The excision, if done in the proper plane, is completely painless and bloodless due to the avascular plane created by the local anaesthetic.
- Dress the wound with a piece of alginate of appropriate size (Figure 6).
- Subsequent dressing with hydrocolloid or foam depending on the progress of healing.

Discussion

A chronic ulcer is often covered with dry, firm, necrotic tissue, which is better described as eschar (eschar means non-viable skin debris composed of devitalised dermis and coagulum)³. Eschar

Figure 1.



Figure 2.



Figure 3.



Figure 4.



Figure 5.



Figure 6.



is more commonly seen in pressure ulcers over the heel, buttock and trochanteric regions, where chances of injury to underlying neuro-vascular structures are minimal. However, in other regions such as groin, axilla and neck, one has to be aware of major neurovascular structures underlying eschar and appropriate caution is needed. Any medically qualified person with a special interest in wound management should be able to perform this procedure. There is no barrier to nursing staff performing escharectomy provided they have received appropriate training.

Plain lignocaine is recommended as it has a quick onset and addition of adrenaline may cause untoward side effects such as arrhythmia. The procedure can safely be performed at the bedside, but in case of a large wound (as sometimes in gluteal region) the operating theatre is probably more appropriate.

After removal of eschar, alginate dressings are recommended as they are highly absorptive and possibly have some haemostatic properties. Escharectomy costs approximately between \$100 to \$130 for a single procedure, which includes the cost of sterile reusables, disposables and operator time. This is significantly cheaper and quicker than chemical, mechanical and autolytic methods of debridement.

References

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3. Churchill's Illustrated Medical Dictionary. Churchill Livingstone Inc, 1989.