

perineum of hospitalized male patients, particularly with spinal cord injury.⁸ In our patient, the blue staining of the underpants is thought to be caused by *P aeruginosa*.

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Surgical Pearl: Patient-applied manual pressure for hemostasis

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After routine shave biopsies, most dermatologists reflexively cauterize or apply a styptic or caustic agent such as aluminum chloride hexahydrate, ferric subsulfate, or trichloroacetic acid to the resulting defect to produce hemostasis before bandaging. Unfortunately, caustic hemostatics and electrosurgery produce tissue necrosis and retard normal wound healing.^{1,2} Electrosurgery for hemostasis results in tissue necrosis and eschar formation, undesirable smell, increased risk of infection, delayed wound healing, pacemaker complications, and the potential for scarring. A perceived benefit of decreased incidence of postprocedural bleeding is generally held because wounds treated with electrocautery are compared with untreated wounds left without pressure or compression. We describe patient-applied manual pressure hemostasis for dermal biopsy sites, such as those produced by routine



Fig 1. Demonstration of patient's second finger over dressing for patient-applied manual pressure.

shave biopsies, in dermatologic daily practice. Although this is a technique that is intuitive for most, we believe it is an underused surgical tool, and is cosmetically more appropriate by leaving less trauma to the biopsied site resulting in superior wound healing.

TECHNIQUE

Good hemostasis begins with adequate anesthesia. We prefer a dilute solution of 0.5% lidocaine with 1:200,000 epinephrine buffered 1:10 with 8.4% sodium bicarbonate. Studies have shown that no significant differences are found with regard to the

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Fig 2. Timer is set and placed at patient's bedside to inform when pressure may be released.

vasoconstrictive effects of epinephrine or the reduction of local blood flow between epinephrine concentrations of 1:50,000, 1:100,000, 1:200,000, or 1:400,000.^{3,4} The anesthetic is injected directly into the dermis by the dermal tumescent technique.⁵ Intradermal injection of local anesthetic solution will produce pallor and tumescent swelling of the dermis with a characteristic peau d'orange appearance. This local tumescence usually provides a temporarily bloodless field.

After the biopsy or excision, a folded, bulky 4- × 4-cm piece of gauze is applied directly over the wound and held in place with surgical tape. The surgeon then places the patient's second finger over the dressing and asks the patient to hold constant light pressure over the wound (Fig 1). A timer may be set and placed at the patient's bedside to inform him or her when pressure may be released (Fig 2). After 5 minutes of patient-applied pressure, the wound is dressed with an adhesive strip over a folded 2- × 2-cm piece of gauze (Fig 3).

In an informal survey of 25 consecutive shave biopsies using the manual pressure technique in our practice, 16 had no evidence of bleeding when the bandage was removed at 10 minutes. The remaining 9 had only pinpoint bleeding, which was easily controlled with a final light pressure dressing made



Fig 3. After patient-applied manual pressure, wound is dressed with adhesive strip over folded 2- × 2-cm piece of gauze.

from a folded 2- × 2-cm piece of gauze under an adhesive strip as shown in Fig 3.

"Pressure is the king of hemostasis" is a concept understood by most Boy and Girl Scouts, but seldom acknowledged by dermatologists armed with caustics and electrosurgical devices. Tangential biopsies and shave excisions provide valuable diagnostic information about epidermal and dermal disease processes. Bleeding complications occurring after tangential biopsies are rare. We describe patient-applied manual pressure as a time- and cost-effective method by which to obtain hemostasis for superficial procedures in routine dermatologic practice.

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