Rhinophyma is a common condition in the west of Scotland. Various surgical approaches have been described, most of which rely heavily on electrocautery, heated scalpel, or laser coagulation for hemostasis, resulting in thermal injury and substantial risk of scarring. The authors describe their experience with the “triple approach” for the surgical treatment of rhinophyma, consisting of tangential excision for debulking, the use of scissors for sculpting, and the use of mild dermabrasion for final contouring. The use of an alginate hemostatic dressing is also described. The triple approach has been used in 6 patients with pleasing results.

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Rhinophyma is thought to represent the most severe expression of acne rosacea. There are notable variations in incidence according to gender and ethnicity. It is a relatively common condition in the west of Scotland. Twelve to 13 new cases per year present to this unit for surgery. The disease is rare in Japan\textsuperscript{1} and in African-Americans.\textsuperscript{2} Although rosacea is much more common in women, rhinophyma occurs almost exclusively in men. Many treatment modalities have been suggested for rhinophyma, including antibiotics, retinoids, cryotherapy,\textsuperscript{3} radiotherapy,\textsuperscript{4} tangential excision,\textsuperscript{5,6} full-thickness excision and direct closure,\textsuperscript{7} skin grafting or flap reconstruction,\textsuperscript{2} and laser resurfacing.\textsuperscript{8} The use of electrocautery, heated scalpels, and lasers are often used specifically to improve hemostasis.\textsuperscript{8–10} Thermal damage from these agents can cause scarring.\textsuperscript{2}

The triple approach is refined from traditional tangential excision using the scalpel or dermatome. It is more comprehensive than any previous similar approach. It is associated with minimal risk of thermal injury. When used in combination with an alginate dressing, such as Kaltostat (ConvaTec), hemostasis is not a problem.

Patients and Methods

To minimize scarring, we have recently adopted a triple approach for surgical treatment of rhinophyma that has now been performed on 6 patients. It consists of three steps to remodel the nose. These are the use of the scalpel for debulking the markedly thickened skin, the use of scissors for contouring, and the use of mild dermabrasion to achieve the final result.

All the procedures are performed with general anesthetic, with local anesthetic infiltration using 0.25% bupivacaine with adrenaline for hemostasis and postoperative analgesia.

The first element is tangential excision. The dome of the nose can be stabilized by inserting a fingertip into the nostril. Debunking and initial sculpting is achieved with the scalpel using a number-10 blade. This can be performed with reasonable accuracy, gauging the depth by feel (Fig 1). Care must be taken not to include “normal” skin. This technique allows most of the excess hyperplastic skin to be removed, and reveals many of the deeper cysts. The procedure leaves a multifaceted appearance. This is then contoured with a pair of sharp iris scissors, which constitutes the second stage of the technique. It is possible to excise the crests of tissue remaining after scalpel excision (Fig 2), and to excise tissue on concave surfaces, such as the alar groove. Scissors are the easiest method to feather the edges between abnormal and normal skin without the risk of incising the normal skin too deeply.

The third element is mild dermabrasion, which aids in the final contouring of the nose. We have found that a disposable electrosurgical tip cleaner is very useful for this purpose (Fig 3). It is

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Alginates promote epithelial healing compared with soft paraffin\textsuperscript{11} or impermeable\textsuperscript{12} dressings. Alginates demonstrate a marked improvement in hemostasis over gauze, oxidized cellulose, and porcine collagen.\textsuperscript{13–16}
quite gentle on the tissues and does the final remodeling of the nose precisely (Fig 4). It is also cheap and readily available in all operating theaters, and has the added advantage that it does not cause droplet dispersion of blood into the atmosphere, as is the case with powered dermabraders.

Occasional pulsatile bleeding vessels are cauterized using fine bipolar diathermy. Other than this, no attempt is made to cauterize the nose. Finally, a single layer of Kaltostat dressing is cut to shape and applied over the nose. This is supplemented with another similar layer once the first one becomes soaked through. The second layer is moistened with normal saline because Kaltostat is most effective when wet. The nose is covered with sterile gauze, and manual pressure over all the dressings for 5 to 10 minutes at this stage almost always stops the bleeding (Fig 5). The Kaltostat is left in situ for several days, until the dressing peels off by itself. Mild infection during the first few weeks can be quite common. Kaltostat can be replaced easily during the healing phase if the dressing detaches prematurely.

**Results**

We have now used the triple approach on 6 patients. The time to heal is typically 5 to 6
weeks. Perioperative and postoperative bleeding have not been a problem. No revisional surgery has been required. No patient has sustained scarring. We are very pleased with our results. One patient is shown preoperatively and postoperatively (Figs 6 and 7).

Discussion

Severe rhinophyma is a disfiguring and socially stigmatizing condition, characterized by lay terms such as “whisky” or “rum” nose, or “grog blossom.” The public tends not to discriminate between the facial telangiectasia of alcoholism and the facial flushing associated with rhinophyma or rosacea. Surgery is the only method shown to reduce rhinophyma, but often the use of electrocautery has caused damage or exposure of the cartilaginous skeleton of the nose. The triple approach has minimal risk of exposure or damage to underlying structures because electrocautery is kept to an absolute minimum. This is facilitated by the use of the hemostatic alginate dressings.

We have not seen any reports in the literature of an alginate dressing used after tangential excision for rhinophyma. The use of Xeroform, Vaseline, and fresh porcine skin have been described. Alginites have demonstrated superior hemostatic properties and promote reepithelialization compared with soft parafilm dressings. Xenograft porcine skin, although hemostatic, has been known to produce marked cellular inflammatory reaction in comparison with alginate, and to cause hypertrophic scarring. We think alginate dressings have theoretical and practical advantages over other dressings. Time to healing is reduced. Scarring is reduced because the need for cautery is reduced. Alginate dressings are easily obtained. They have a huge absorptive capacity and are replaced easily if required.

Our recent modification of the surgical treatment of rhinophyma has shown promising results in this short series. We are quite convinced that this technique is associated with minimal scarring. The regular use of hemostatic alginate dressings has not only brought the incidence of postoperative bleeding to naught, it has also added to the patient’s comfort. We recommend
the triple approach in conjunction with a Kaltostat dressing.

References

16 Vanstraelen P. Comparison of calcium sodium alginate (Kaltostat) and porcine xenograft (E-Z Derm) in the healing of split-thickness skin graft donor sites. Burns 1992; 18(2):145–148

Erratum


The manufacturer of Apligraf was erroneously listed as Novartis (Canton, MA) in the above-mentioned article. Apligraf is manufactured by Organogenesis, Inc. (Canton, MA) and marketed by Novartis Pharmaceuticals (East Hanover, NJ). We regret the error.

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