Rhinophyma is a slowly progressive, tumour-like enlargement of the nasal skin, caused by a granulomatous infiltration, commonly as a result of untreated rosacea, a chronic skin disease affecting up to 10% of the population in some European countries [1] (Figure 1). The resulting large, bulbous, ruddy nose gives rise to both cosmetic and functional issues, the latter often occurring due to an inward collapse of the lower lateral cartilages and a narrowing of the nostrils and nasal valve area. It has also been reported that this may occasionally hide a skin malignancy, but there is no convincing evidence that it is in itself a primary risk factor [2].

Medical therapy is not generally useful in the treatment of rhinophyma, except in the early stages when isoretinoin or oral antibiotics such as metronidazole may be of some benefit. In more advanced cases, surgical intervention becomes the mainstay of treatment. There have been many described methods, including tangential cold steel excision, dermal abrasion with burrs or wire brushes, coblation techniques, the use of laser (most commonly the CO2 laser) and Mohs-type micrographic surgery [1,3]. The aim of surgery is to remove excess skin tissue and preserve the residual deep pilosebaceous follicular epidermal islets from the deeper layers of the skin. These islets allow re-epithelisation of the denuded surface.

We describe our method of treating rhinophyma with the use of a powered microdebrider, a commonly used instrument by ENT surgeons performing endoscopic nasal surgery, followed by haemostasis with FloSeal® haemostatic matrix (Baxter, Berkshire, UK), which consists of a bovine-derived gelatin matrix component and a human-derived thrombin component. The use of a powered microdebrider in rhinophyma was first described by Kaushik et al. in 2003 and again more recently in 2013 by Fars, et al. [4,5].

**Preparation**

Pre-operatively, patients should be warned about the possible complications of the procedure which include the need for further debridement, denuding of areas of the nose through excessive debridement, hypertrophic scarring and failure to improve nasal function. We advise cessation of anticoagulants five days pre-operatively where possible.

**Procedure**

After cleaning and draping the nose, a microdebrider is used to remove the thickened skin of the dorsum of the nose (Figure 2). It is best to start where the skin is most thickened to allow the surgeon to 'feel' the difference between debulking skin and nasal polyps. The microdebrider is kept in constant motion, removing the layers of the rhinophyma as evenly as possible. This avoids the
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possibility of exposing underlying perichondrium or periosteum through overzealous debridement. If this does occur, the denuded area usually granulates and may be left to heal by secondary intention.

The first layer is generally the thickest, thus requiring the greatest amount of pressure on the microdebrider, after which subsequent layers become easier to remove. Counter-traction with the other hand aids in the debridement. We have found that the nature of the mechanism of action of the debrider allows for superior simultaneous contouring and debridement. The disposable suction blade of the microdebrider may need to be replaced once or twice during the procedure as it becomes blunt when using it on skin.

Once a satisfactory result has been achieved, FloSeal® is applied to the operating field and evenly distributed (Figure 3). Wet gauze is placed over the nose for two minutes until the FloSeal® ‘sets’ (Figure 4). The ‘set’ FloSeal® acts as a form of dressing and no further additional dressing is necessary.

The patient is discharged the next day with advice to keep the area dry for five to seven days and is reviewed two weeks later in the out-patient setting. Any scabbing can be gently removed to reveal healthy, granulating tissue underneath. In our experience, patients generally make a full recovery within two to three weeks (Figure 5).

To date we have not experienced any problems with hypertrophic scarring or failure of the nasal skin to re-epithelialise with this procedure, even in overly-denuded areas. Should these occur, then further debridement may be undertaken in conjunction with an intervention which promotes re-epithelialisation. For this, a split skin graft may be used. Recently, the application of ReCell® has been shown to hasten the re-epithelialisation process when used in conjunction with a split skin graft and potentially prevent further hypertrophic scarring [6].

Conclusion

Rhinophyma represents a therapeutic challenge, as a successful outcome depends on a judicious balance of cosmesis, function and haemostasis. The combined use of a microdebrider, a commonly used ENT instrument, and FloSeal® aids in this balance, the former providing a controlled, effective method of removing excess nasal skin and of contouring, and the latter, quick, efficient haemostasis.

References


