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One lump or two?

A case study of infiltrating BCC on the nose

Case history

A woman aged 42 years, who works as a hairdresser, presents with two apparent actinic lesions on the right of her nose (*Figure 1*).

Close clinical examination reveals the lesions are likely to be infiltrating basal cell carcinomas (BCCs). The lesions are firm with similar nontender indurations surrounding each site. Infiltrating BCCs can extend beyond the poorly defined clinical borders.

Could these two lesions be the one tumour?



Figure 1. Two nose lesions, highlighted by black pen

The upper basal cell carcinoma (BCC) is approached first. Given the difficulties determining tumour border, this BCC is managed using micrographic surgery, a margin control approach sometimes termed 'Mohs' or 'slow Mohs' surgery (*Table 1*). In this technique the excision specimen is sent for urgent paraffin or frozen section examination. The defect is not closed until there is confirmation of margin clearance. This produces minimal recurrence rates in BCCs that would otherwise result in unacceptably high tumour recurrence risk. A critical aspect of this approach is careful mapping and orientation of the specimen (*Figure 2*). If further excision is required, one must be confident of the exact site on the patient's face.

Histology demonstrates BCC extending inferiorly, confirming these two lesions are in fact a single BCC. Second stage slow Mohs is undertaken the day after the first stage excision. This involves excising the entire lower lesion and extending the dissection to include the involved border of the first stage excision. The defect following this second stage is shown in *Figure 3*.

Histology confirms the tumour is now fully excised. This leaves a sizeable defect to be filled. The major part of this defect is closed using a forehead flap. This flap is based on the contralateral supratrochlear artery.

Table 1. Mohs micrographic surgery

Mohs micrographic surgery is an established benchmark method of managing difficult nonmelanoma skin cancer.¹ Its usage is typically for difficult BCCs on the head and neck. The tumour may be selected for Mohs surgery because it is a morphoeic, micronodular, or infiltrative BCC, because it has poorly defined margins, or because it is recurrent BCCs previously failing treatment with other modalities such as imiquimod, photodynamic therapy, curettage, or cryotherapy are often selected for Mohs surgery because the previous treatment clouds determination of where residual tumour starts and stops

Sites where Mohs surgery is most often considered are:

- eyelids
- nose
- ear
- lips, and
- areas of the face near these organs

Classic Mohs micrographic surgery involves frozen section histology whereby the surgeon is also the histologist. Further sections are taken the same day until clearance is confirmed. This is frequently undertaken by dermatologists who have completed a post fellowship Mohs training program over 1–2 years

In 'slow Mohs' surgery, the dermatopathologist and surgeon work in partnership, and stages may take place over several days

Mohs surgery is readily available in most areas of the United States. In Australia the service is limited to a small number of major centres. General practitioners and patients would benefit from establishing if there is a Mohs or slow Mohs service in their area



Figure 2. Layout for first stage margin control surgery



Figure 3. Post second stage excision



Figure 4. Post first stage repair



Figure 5. Post second stage repair



Figure 6. Seven months after second stage repair

The flap folds down onto the nose (*Figure 4*). The patient must wear this 'trunk' across her nose for 2–3 weeks. Considerable preoperative counselling is required regarding the unsightly trunk.

The trunk is excised during the final stage of surgery (*Figure 5*). Note that the upper part of this defect has been left to heal by secondary intention. Secondary healing can be effective in certain circumstances. Concave regions with a firm base lend themselves to secondary healing. Classic sites where secondary healing may be considered are:

- conchal bowl of the ear
- near the inner canthus, and
- the lower leg.

Seven months later, the area has healed reasonably for a large defect (*Figure 6*). A 'web' of skin near the canthus may result from allowing this area to heal by secondary intent. This can be later revised.

Summary of important points

- Infiltrating BCCs can appear with the majority of the tumour hidden under apparently normal looking skin.
- Where two new BCCs appear close to each other, consider they may be one tumour.

- Where borders of BCCs are impossible to clinically determine, consider micrographic controlled surgery.
- Secondary intent healing can be effective in certain circumstances. Concave regions with a firm base lend themselves to second intent healing.
- Skin grafts are now rarely used on the nose. An array of flaps invariably produce more acceptable results.
- Management of BCCs with cryotherapy, imiquimod, or fluoruracil cream (rather than obtaining histology), could lead to delay in diagnosis while the large deep tumours invade further into the nose and risk vital structures.

Conflict of interest: none declared.

Reference

1. Sei J, Chaussade V, Zimmermann U, et al. Mohs micrographic surgery: history, principles, critical analysis of its efficacy and indications. *Ann Dermatol Venereol* 2004;131:173–82.

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