

Dermatologic surgery

Tangential excision (saucerization) of small basal and squamous cell skin cancers with formalin horizontal (en face) comprehensive margin histopathologic evaluation

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Abstract

Background Mohs surgery is not appropriate for all skin cancer removals. D&C has an unacceptable recurrence rate of 10-20%. A simple method of skin cancer removal is needed to fill the gap. Tangential excision is a more accurate, safer, and more time-efficient method to treat small basal cell and squamous cell skin cancers.

Objective Detail the process of performing tangential excision of skin cancers.

Methods A practitioner has performed this technique for 30 years. His experience is described here.

Results Tangential excision (saucerization) is an excellent method used to treat small skin cancers.

Conclusion This technique should be considered as a better choice than D&C for the treatment of skin cancers which are not appropriate for Mohs surgery.

Herein describes a technique of tangential excision for the definitive treatment of small non-melanoma skin cancers with horizontally sectioned inferior (cut) comprehensive margin pathological evaluation. The specimen is obtained with a curved sterile surgical hospital razor blade.¹⁻³ In traditional Mohs techniques, the blade initially incises the epidermis at a 90-degree angle. Here, the blade is flush to the surface, cutting in a concave manner from the beginning of the contact with the surface. This change improves the final cosmetic result as these wounds normally are left to heal by secondary intention in an occluded manner without suturing.

The lesion is removed in a single motion without fragmenting the specimen, gently flattening it in a cassette for processing. It is interpreted with en face sections (Figure 1). This is the most efficient, simple, accurate, and elegant technique available for the removal of small basal cell and squamous cell cancers. This author has used this technique primarily for basal cell and squamous cell cancers less than 1 cm in size for over 34 years in thousands of cases with a known recurrence rate of less than three overall cases. This is a better cure rate than any published skin cancer removal technique, including D&C and Mohs.^{4,5} The limiting factor is the learning curve and cooperation of a dermatopathologist willing to read specimens sectioned horizontally from the inferior (cut) surface.

The technique is as follows:

- 1 Tangentially excise the tumor while clinically estimating the deep and peripheral margins. Saucerize with 2 mm margin.
- 2 Orient the specimen on a prepared marked gauze – mark the gauze at 12:00 (do not nick specimen or site on patient)
- 3 Dye inferior cut margin - peripheral edges in quadrants using 4 different colors and the deep margin dyed in black
- 4 Document diagram for the chart
- 5 Gently prepare specimen sectioned side down on a rectangular piece of cardboard pre-cut to fit inside the cassette
- 6 Place foam above and below the cardboard
- 7 Close the cassette
- 8 Place the cassette in a formalin bottle
- 9 Submit to lab indicating "horizontal en face sectioning"
- 10 Wound care is done with hydrocolloid dressing, changing when it leaks. The patient is checked weekly to assess healing and review the pathology result.

Advantages of this technique:

- 1 D&C ×3 is three separate time-consuming actions, whereas this is a single faster transection similar to a deep biopsy. Any dermatologist who can do a shave biopsy can do a

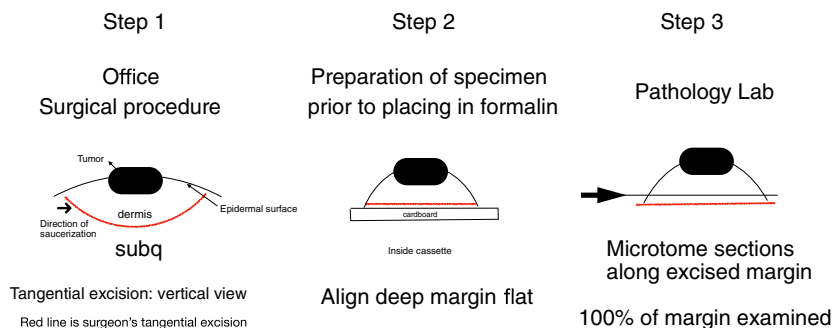


Figure 1 Diagram of surgical office procedure, in office preparation of specimen, and Pathology Laboratory processing

shave removal in this manner. No additional training is needed.

- 2 This is safer (no smoke plume with potentially infectious or toxic desiccation nanoparticles.)
- 3 It's much more accurate (a path report comes back – comprehensive peripheral margins examined – not like a “bread loaf”, which only examines 2% of the margin). Additionally, there is no evidence a tumor is successfully treated when performing a D&C.
- 4 This leads to a smaller scar. Only the tumor is taken, no decision is needed on how many mm margins to take for a “standard of care” elliptical excision nor the need to do an extension of the incision to make an ellipse to suture it closed.
- 5 Stitches are not required, which are time-consuming and require sterile technique.
- 6 The equipment is limited to a single halved sterile surgical blade, gauze, non-sterile gloves, Monsel's for hemostasis, and hydrocolloid dressing.
- 7 The procedure does not rearrange the anatomy, create planes for tumor to spread along an undermined area, nor potentially bury residual tumor, making recurrence easier to identify, which is extraordinarily rare employing this technique
- 8 The claim that you can “feel” the basal cell with the curette performing a D&C is unproven. The 10–20% recurrence rates after D&C are unacceptable.
- 9 D&C cannot be adequately done on thin skin areas, since they easily tear, those areas are also not amenable to suturing, as atrophic skin doesn't hold sutures well. The technique described here avoids this problem.

Disadvantages:

- 1 Like excision, D&C, or Mohs, the extent of the tumor is not definitively assessed in advance of the procedure.
- 2 An improvement of this technique could include pre- and/or post-examination of the site by OCT, touch imprint,

ultrasound, or confocal microscopy for the initial extent or to check for any residual tumor.^{6–9}

- 3 There is a possibility the tumor is not cleared, and additional treatment may be necessary. Deep positive margins are normally treated with more traditional excisional surgery, as the peripheral margins are already cleared, or Mohs. Positive limited peripheral margins are often treated with repeat of the tangential excision technique described above. Using highly selected small lesions, this technique is over 96% effective on clearing the tumors with one treatment session only.
- 4 The cosmetic result may not be as good as an excellent repair by an experienced surgeon closing with exquisite suturing technique.
- 5 Immediate margin result is not available in contrast to frozen section Mohs.

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