

Excision of Basal Cell Carcinomas: are two-millimetre resection margins enough?

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Introduction

Basal cell carcinoma (BCC) is the most common form of skin cancer with almost 90% occurring on the head and neck and up to 10% involving the eyelid^{1,2}. The lower lid is the commonest location for BCCs, followed by the medial canthus, with the upper lid a rare location². The main treatment modality of BCCs is surgical excision, which aims to clear the tumour entirely, restore eyelid function and leave an acceptable cosmetic outcome². The commonly reported safe surgical excision margin is 3-4mm^{3,4}. However, because of the functional and cosmetic constraints of the eyelids, a margin of 3-4mm is often not feasible⁴. In a study by Chada et al., they found that smaller margins (2mm) were able to safely excise periocular, well-demarcated nodular BCCs⁵. In this study we analysed the surgical margin clearance of histologically confirmed BCCs which were removed with standard surgical excision using a 2mm surgical margin.

Aims

The primary aim of this study was to analyse tumour clearance from the resection margin during the first operation, in confirmed BCC cases, where standard surgical excision used a 2mm margin.

Method

A single surgeon retrospective analysis of 44 patients with histologically confirmed BCC between September 2019 to February 2021. All patients with a confirmed diagnosis of BCC, of any type, were included in the analysis. Diagnosis and actual surgical resection margin was confirmed from the pathologist report. The surgical margin used for each case was taken from the operation note.

Clear margins after first operation

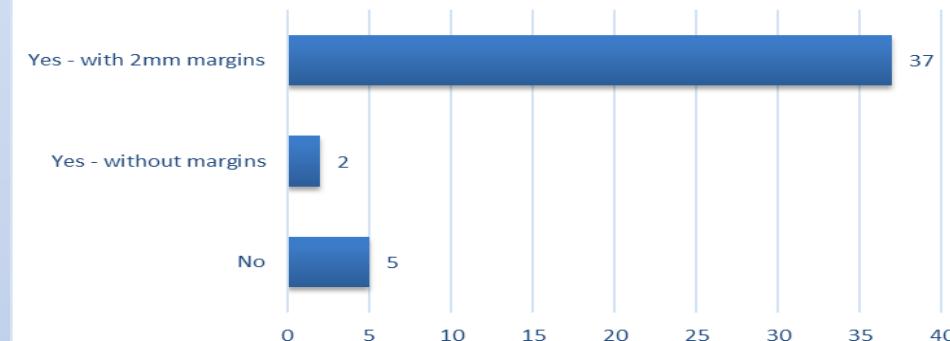


Table 1. Comparing number of cases with and without clear margins after first operation

Explanations for the five cases without clear surgical margins at first operation

1. A punch biopsy was used to confirm diagnosis, therefore, no margins used.
2. BCC extended beyond 2mm margins peripherally.
3. Lesion was presumed papilloma, therefore, excised without 2mm margins.
4. Large BCC clear of all margins except lateral, which was "potentially" involved.
5. BCC extended into medial margin beyond 2mm margin.

Table 2. List of explanations for the 5 cases where surgical margins were not clear after first operation

Results

- Of the 44 cases included in this study, following resection of histologically confirmed BCCs with 2mm surgical margins, 37 out of 44 (84.1%) were excised with clear surgical margins after first operation.
- A further 2 cases, where no margins were used, still had clear surgical resection margins on histology.
- Total number of cases with clear margins after one operation, 39 out of 44 (88.64%).
- 5 out of 44 (11.36%) had incomplete margins and these required one follow-up surgical excision to achieve clear margins.
- 38 out of 44 (86.36%) had an initial presumed diagnosis of BCC before histology. Of these 38 cases, 34 had clear margins after first operation (89.48%).
- 6 out of 44 (13.64%) cases had initial presumed diagnosis different from the later confirmed tissue diagnosis of BCC. Of these 6, only 1 case was resected with unclear margins at first operation, the rest were completely excised with clear margins (83.33%).
- The site of tumour was most commonly lower lid, 36 out of 44 cases (81.82%), with the rest being medial canthal in origin, 8 out of 44 (18.18%).

Conclusions

The use of 2mm surgical margins to surgically excise BCCs from the lower lid and medial canthus is likely to result in clear surgical margins after the first operation. This likelihood is increased if the initial presumed diagnosis is BCC.

References:

1. Hamada S, Kersey T, Thaller VT. Eyelid basal cell carcinoma: non-Mohs excision, repair, and outcome. *British Journal of Ophthalmology* 2005;89:992-994.
2. Rene C. Oculoplastic aspects of ocular oncology. *Eye (Lond)*. 2013;27(2):199-207.
3. Quazi SJ, Aslam N, Saleem H, Rahman J, Khan S. Surgical Margin of Excision in Basal Cell Carcinoma: A Systematic Review of Literature. *Cureus*. 2020;12(7):e9211.
4. ÖF Ünverdi, S Yücel, OS Berk. *Adv Skin Wound Care*. 2020 Apr 01;33(4):209-212
5. Chada V, Wright M. Small margin excision of periocular basal cell carcinomas. *Br J Ophthalmol*. 2009 Jun;93(6):803-6. doi: 10.1136/bjo.2008.151183. Epub 2009 Mar 19. PMID: 19304655

None of the authors have any conflicts of interest.