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# Excising basal cell carcinoma in general practice

## BACKGROUND

Currently there is much interest in the general practice management of basal cell carcinoma (BCC). Published research regarding its surgical management mainly pertains to tumours located on the head and neck. However, in my general practice experience, the majority of excisions came from other sites.

## METHODS

A retrospective audit of histopathology reports from 91 excisions of BCCs.

## RESULTS

Thirty-nine percent of BCCs in this series were located on the head or neck, compared with 75–94% from other series; 50% of BCCs from the head/neck contained an aggressive histological subtype, compared with only 10% from other sites; four out of 139 papers found regarding surgical management of BCCs were from primary care practice.

## DISCUSSION

Significant differences exist between the location mix and histological types of BCCs treated in general practice with those reported in the research literature. Treatments advocated by this literature may not be readily transferable to the general practice setting.

**Nonmelanoma skin cancer (NMSC) is the commonest type of cancer diagnosed in Australia, and accounts for more health expenditure than any other cancer.<sup>1,2</sup> Basal cell carcinoma (BCC) is 2–3 times more common than squamous cell carcinoma.<sup>3,4</sup> Because the incidence of NMSC increases with age,<sup>4,5</sup> its burden is likely to increase as the population ages.<sup>5</sup> Several National Health and Medical Research Council recommendations<sup>1</sup> about the surgical management of BCC – including the use of clinical margins of at least 3 mm for clinically favourable BCCs – imply that general practitioners can manage most of these; and research shows they do.<sup>6</sup> The guidelines are primarily aimed at GPs who treat NMSC, although none of the clinical studies on the surgical treatment of BCC used to formulate them come from general practice. I wondered whether my clinical experience in the surgical management of BCC in general practice accorded with published research.**

## Methods

I undertook a retrospective review of all histology reports of BCCs surgically excised as a treatment (as opposed to biopsy) from February to August 2005 in one private general practice skin cancer clinic, including re-excisions for initial inadequate excision. My surgical practice is to

excise all BCCs with a 2–3 mm clinical margin from the observed tumour edge. Sex, age, body site, reported size, histological subtypes, and adequacy of excision were recorded. I classified body sites into head, neck, limbs and torso (all other areas).

Histological classification was routinely reported by Queensland Medical Laboratories, which also reported whether excisions were not complete (meaning tumour extended histologically to the margins of the specimen). If tumour was reported less than one high power field or <0.5 mm from the margin of the specimen, I classified it as close to the margin. The remainder were then called complete.

Basal cell carcinoma histology was sorted into two groups: aggressive and nonaggressive, according to previously studied clinical behaviours of the different histological subtypes. The histological subtypes: infiltrative, morpheic, and micronodular, were chosen for the aggressive group as they have been found to be associated with an increased rate of incomplete excision<sup>7–9</sup> and/or recurrence,<sup>10–13</sup> and/or larger margins required for complete excision using Moh's technique.<sup>14–18</sup> Nodular and superficial BCCs comprised the nonaggressive group. The histological classifications used were those of Rippey<sup>19</sup> (there is no single standard used by histopathologists in Australia to classify BCC subtypes).

**Table 1. Size and histological subtype by body location**

Body location	Number n (%)	Mean size (mm)	Range (mm)	Median size (mm)	Aggressive histological subtype n (%)	Nonaggressive histological subtype n (%)
Head	30 (33.0)	11.1	3–27	10	{18 (50)	18 (50)
Neck	6 (6.6)	18.0*	9–37	15		
Upper limb	16 (17.6)	11.4	4–20	10	{2 (8)	23 (92)
Lower limb	9 (9.9)	14.4	6–23	13		
Torso	30 (33.0)	13.3	6–28	13	3 (10)	28 (90)

\* Mean size skewed by one 37 mm lesion

**Table 2. Proportion of BCCs by body site**

Study data from	Head and neck BCC n (%)	Torso and limbs BCC n (%)
Current GP series, Australia	36 (41)	56 (61)
Another GP series, Australia <sup>22</sup>	44 (39)	69 (61)
Private practice plastic surgical series, Australia <sup>21</sup>	1065 (75.5)	346 (23.5)
Peter MacCallum Institute, Australia (patient numbers) <sup>19</sup>	714 (79)	187 (21)
Hospital dermatology department, United States <sup>28</sup>	433 (75)	142 (25)
Teaching hospitals, United Kingdom <sup>29</sup>	644 (85)	113 (15)
Hospital plastic surgical department, France <sup>23</sup>	130 (94)	8 (6)
University hospital dermatology department, Spain <sup>7</sup>	226 (83)	47 (17)

## Results

There were 92 BCC histology reports from 65 patients. One report did not have all the required information (a BCC located on the back with the BCC size missing). The mean age of the patients was 59 years; 42 (65%) were male. The mean reported size of BCC was 12.7 mm (range 3–37 mm, median 12 mm). Thirty-six BCCs (39%) were located on the head or neck, 31 (34%) were located on the torso, and 25 (27%) were located on the limbs (upper or lower) (*Table 1*). More head and neck BCCs had an aggressive histological type than those from other body sites. Two (2.2%) BCCs were not complete excisions, and none were close.

## Discussion

There were significantly more men treated for BCC than women, with other Australian studies<sup>4,5,20,21</sup> also showing a preponderance of male subjects. The location of BCC in this audit was the same as that seen by Lathlean<sup>22</sup> in general practice, South Australia, with the majority of BCCs being on the torso or limbs. There appear to be significant differences between the rates of

BCCs by location seen in general practice, those encountered in specialist and hospital practice in Australia, and those used in overseas research (*Table 2*). This may be due to GPs treating most BCCs themselves, only selecting certain types for referral.

There were 2/92 (2.2%) incomplete excisions. This compares favourably with other published studies in which 2 and/or 3 mm surgical excision margins were used.<sup>7,9,23,24</sup> Incomplete excision rates are generally lower in studies from primary practice<sup>24</sup> than those from referral based practice.<sup>9</sup>

A literature search using 'basal cell carcinoma' or 'basal cell cancer' or 'nonmelanoma skin cancer' in Medline, EMBASE, Cochrane Library, and Meditext databases (limited to the English language) to find research pertinent to the surgical management of BCC from the past 40 years reveals 139 studies, only four of which are from primary practice<sup>24–27</sup> and all from private dermatology practices in the United States. The majority of NMSCs (including BCC) in Australia are likely to be treated in general practice,<sup>1,6</sup> but the majority of research available to guide our treatment of BCC comes from

specialist and hospital based studies.

The location mix and histological subtypes of BCCs seen in this audit (and noted by Lathlean<sup>22</sup>) are different to those seen in referral services, and different from those in most of the available research. Basal cell carcinoma on different sites and with different histological subtypes may require different treatments to achieve appropriate cure rates. As such, the existing research needs to be viewed with caution when extrapolating findings to general practice (although general practice data comes from only a small sample, and further studies are needed to confirm these findings). Given the great burden of treating BCCs on GPs and the health system, there is a need for further research in the general practice setting.

## Implications for general practice

- BCCs on different parts of the body have different histological characteristics.
- GPs' experiences of BCC treatment is different to doctors in referred practice.
- Current guidelines on the surgical treatment of BCCs are not based on primary care research.

Conflict of interest: none declared.

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