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Five year basal cell carcinoma recurrence rates treated with curettage and cauterly, a single centre retrospective cohort study

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Introduction

Basal cell carcinoma (BCC) is the most common skin cancer in the UK, accounting for 75% of all non-melanoma skin cancers, with around 75,000 new cases diagnosed annually¹. BCCs are usually treated by surgical excision however, curettage and cautery (C&C) is a simple and inexpensive alternative surgical technique².

European consensus guidelines on BCC treatment³ reported a variation in 5-year recurrence rates using C&C between 3% and 20%. Our study investigates facial BCC lesions recurrence rate treated with C&C.

Recent guidelines^{3, 4} have suggested caution in how C&C is applied and a study suggested the recurrence rate for surgical BCC excision may be lower⁵. However, some of the evidence suggesting a higher risk of post-operative recurrence with C&C alone is partly based on data collected more than 15 years ago.

Method

This retrospective cohort study was conducted in the department of Dermatology and Plastic Surgery at a regional acute UK hospital to investigate the BCC recurrence rate treated with curettage and cautery. Patients were treated by a Dermatologist or a Plastic Surgeon according to national guidelines with the choice of surgical intervention discussed and agreed with the patient as per standard clinical practice.

All data analysed were collected as part of routine diagnosis and treatment thus facilitating a retrospective review.

Data were collected using electronic patient records (EPR) from the Hospital Centre Histopathology database (Clinisys Winpath). The histopathology database between 2017 and 2018 was searched for patients who had C&C performed on BCCs between 2010 and 2012; a mixed team of dermatologists and plastic surgeons managed the patients. Histology reports were sub-divided into body sites: face high-risk, face low-risk, upper limbs, trunk, lower limbs; tumour sub-type was classified as superficial, nodular, morpheic, infiltrative, ulcerated or nodulocystic. Face high-risk was categorised as any BCC located around the eyes, on or around the nose, temples, upper forehead, or above the upper lip. Face low-risk was categorised as any BCC located on the cheeks, chin, or lower forehead; specimen size was also recorded.

Records were searched for evidence of recurrence within 5-years after surgery. Patients were included if there was evidence of hospital appointments or admissions within the 5-year timeframe. Patients who died were only included if there was confirmed recurrence within 5-years.

Results

155 BCC lesions from 133 patients with a median (range) age of 75 (31 to 103) were assessed with recurrence calculated from one lesion per patient; a patient was considered to have recurrence if occurring in at least one lesion. Overall there was a recurrence in 15 of 133 patients (11%); the age range of the non-recurrence and recurrence groups were similar (table 1). One patient had recurrence in 2 of the 3 primary BCC sites, both of which were classified as face low-risk. One patient had recurrence in two lesions on the trunk. For lesions on the trunk there was recurrence in 2 of 17 patients (12%). For the Face low-risk group recurrence occurred in 6 of 43 (14%) patients which was a similar rate to 7 of 60

(12%) seen in the Face high-risk group. For those patients who had lesion recurrence the median (interquartile range) area of the Face low-risk original lesion was 64 (33 to 137)mm² and 50 (12 to 70)mm² for the Face high-risk lesions; for the trunk the areas of the two lesions were 35 and 240mm².

The median (range) age of patients in the face high-risk group with no recurrence was 79 (39 to 94) years and for the patients with recurrence was 56 (48 to 77) years. For the face low-risk lesion group the median (range) age of patients with no recurrence was 77 (41 to 94) years and for the patients with recurrence was 86 (71 to 103) years.

Discussion

Overall BCC recurrence of 11% for patients was seen in our study, consistent with previous reports⁴. The ages of patients with no recurrence in high and low risk face lesions was similar in our study; however, the median age of the face low-risk patients who had lesion recurrence was 30 years higher than the face high-risk group.

There is currently no standardised technique for C&C which is suggested only for low risk primary BCC lesions⁵; various instruments are available⁵ with a disposable ring curette with sharp and blunt edge being used for C&C in our centre. There is no consensus on how many cycles should be applied in a C&C session and recurrence may depend on the experience of the surgeon this can make comparison between studies difficult and may explain some of the variation seen.

Thus we observed a similar recurrence rate in low and high risk facial BCC lesions suggesting that the categorisation of low and high risk facial lesions should be reconsidered if curettage and cautery is used for treatment of BCC.

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