Letter in Response to Previous Publication

Potential of dermoscopy with standard excision as an alternative to Mohs micrographic surgery for basal cell carcinoma

Dear Editor,

We read with interest the recent study by Savant Jr entitled "Use of preoperative and perioperative *ex vivo* dermoscopy for precise mapping of margins for standard surgical excision of primary basal cell carcinoma".[1] The author suggests that this approach has potential for replacing labour-intensive and infrastructure-reliant Mohs micrographic surgery (MMS), a recognised gold standard in BCC management.[2] As one of the few centres in the country offering MMS, we aim to explore the reasons behind the justified investment in this technique.

MMS detects subclinical extensions of basal cell carcinoma (BCC) that dermoscopy cannot. Through meticulous examination of tissue layers, MMS ensures precise identification and removal of microscopic tumour cells beyond surface visibility, which is not achievable with dermoscopy. In non-pigmented BCC, particularly micronodular and morpheaform types, the usefulness of dermoscopy in assessing lateral margins is limited.[3] In these cases, MMS is essential for comprehensive evaluation and ensuring complete removal of all tumour cells.

The study by Savant Jr excluded cases of recurrent, morpheaform, superficial multifocal and locally advanced BCC, which are the traditional indications for MMS as they show a high recurrence rate following standard excision.[1] In our experience, primary pigmented BCC up to 3 cm can be treated with standard surgical excision using a 3–4 mm margin, unlike western guidelines that recommend MMS for larger lesions or those in specific areas, as pigment structures on dermoscopy aid in accurate margin delineation.[4] The margins employed by Savant Jr ranged from 3 to 5 mm for lesions measuring ≤2 cm and 5 to 10 mm for lesions measuring ≥2 cm in their maximum diameters.[1] These margin sizes exceed those recommended for standard excision in most guidelines and are in excess of what is required to achieve a tumour-free margin.[4] In contrast, the primary objective of MMS is to conserve healthy tissue while ensuring complete tumour removal, thereby ensuring the best possible outcomes for patients.

When using dermatoscopic features of BCCs to determine surgical margins, histopathologic correlation is crucial as certain features like arborizing telangiectasias, telangiectatic vessels, and ulceration may not always indicate tumour nests histologically, potentially leading to unnecessary margin extension.[5] Savant Jr utilised dermoscopy in a non-contact, non-polarised, manner to examine the peripheral margins, border, and base of the excised specimens.[1] Non-polarised dermoscopy would better delineate the surface features, while polarised dermoscopy or non-polarised dermoscopy with a contact fluid is required for better delineation of upper dermal tumour nests.[6] The ex-vivo dermoscopic assessment technique along X and Y axis employed by Savant Jr would examine only two planes horizontally and vertically, similar to the H and E sections used in histopathological analysis.[1] In MMS, the tumour is debulked or curetted before excision to achieve a tumour-free margin, with 100% evaluation of deep and lateral margins (contrasting the Y axis which is the midline) while retaining the curetted/debulked tumour as a positive control, enabling thorough identification of any residual tumour cells and minimising risk of incomplete excision and subsequent recurrence.

Further, dermoscopy is typically limited to the examination of superficial structures within the epidermis and upper dermis.[6] It is not designed to visualise the lesional base through subcutaneous fat, as the optical properties of fat differ significantly from those of the epidermis and dermis. The described approach may not allow direct dermoscopic examination of the base through the fat layer, necessitating exploration of alternative methods for assessing deeper skin structures.

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No patients needed additional resection, possibly due to the wider excision margins and examination of two planes horizontally and vertically, akin to H&E sections, which may reduce the chances of detecting margin involvement.[1] In fact, a separate study that employed a reasonable margin of 3 mm beyond the dermoscopic borders documented suboptimal excision in 7% of cases.[7] This is also in line with our experience in MMS, where patients require an average of 2–3 stages to achieve tumour-free margins. Savant Jr showed favourable five-year recurrence-free follow-up, likely attributable to the inclusion of patients with good prognostic factors and exceeding standard excision margin recommendations.[1]

In conclusion, while dermoscopy with standard excision shows promise in improving diagnostic accuracy for BCC, it is crucial to consider the wider body of research supporting the efficacy of MMS. MMS offers several advantages, such as the detection of microscopic extension, precise delineation of margins, even in non-pigmented lesions, and superior tissue conservation. Therefore, while dermoscopy has its benefits, it cannot replace MMS, which remains a valuable technique for precise margin assessment and complete tumour removal.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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Conflicts of interest

There are no conflicts of interest.

Hitaishi Mehta, Keshavamurthy Vinay, Sunil Dogra

Department of Dermatology, Venereology and Leprology, Postgraduate Institute of Medical Education and Research, Chandigarh, India.

Corresponding author:
Dr. Keshavamurthy Vinay,
Department of Dermatology, Venereology and Leprology, Postgraduate Institute of Medical Education and Research, Chandigarh, India.
vinay.keshavmurthy@gmail.com

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