The case for micrographically controlled skin surgery

An editorial published last year in *Acta Dermato-Venereologica* questions whether Mohs micrographically controlled skin surgery is ever justified.[1] According to that editorial, the size of lesions does not justify micrographically controlled surgery, nor does occurrence of lesions in recurrence-prone sites. Mohs micrographic surgery is not even justified for removal of recurrent basal cell carcinomas. In fact, the editorial states that "the therapeutic use of micrographically controlled skin surgery should stop" (page 3) except in a few centers that should study the procedure experimentally to see whether any advantages for the procedure can be found.

Mountains of literature published over the past 3 decades create a powerful argument in favor of Mohs micrographic surgery in appropriate circumstances. A computer search of the word *Mohs* yielded several thousand references, yet the editorial against micrographic surgery quoted only 4. Numerous articles point to recurrence-prone sites where Mohs micrographic surgery should be considered.[2-6] Stuart Salasche,[2] for example, reported residual tumor in 30% of basal cell carcinomas of the nose and nasolabial folds treated by curettage and electrodesiccation compared with 12% of lesions elsewhere on the head and neck. Suhge d'Aubermont and Bennett[3] reported residual tumor in 46.6% of basal cell carcinomas following curettage and electrodesiccation on the head, compared with 8.3% on the trunk and extremities.

Silverman et al[6] showed high recurrence rates in lesions with larger diameters (≥ 10 mm) and in high-risk areas such as the nose, paranasal, nasolabial groove, ear, chin, as well as in mandibular, perioral, and periocular areas. However, the editorial dismisses the importance of recurrence-prone sites and even doubts the relevance of residual nests of tumor, pointing out that recurrence rates are low despite residual tumor. Others, however, have reported recurrence rates up to 40% after curettage and electrodesiccation and 17.4% after surgical excision.[7] Studies in the 1960s found recurrence rates from 33% to 48% within 5 years when tumor was left at the margin.[8,9]

Some have suggested that the inflammation occurring after curettage and electrodesiccation destroys residual tumor, but that claim has been dispelled by Spencer et al,[10] who showed comparable rates of residual tumor after curettage and electrodesiccation whether lesions were examined immediately after the procedure or 1 month later.

Is Mohs micrographic surgery useful for indications other than basal cell carcinoma? The Mohs technique has been used for many malignancies—sometimes with success and sometimes not. For example, wide surgical excision of dermatofibrosarcoma protuberans can result in recurrence rates as high as 50% to 75%.[11,12] In contrast, Mohs surgery for dermatofibrosarcoma protuberans results in cure rates well in excess of 90%.[13,14]

Can Mohs micrographic surgery be used inappropriately? It certainly can. As the editorial in *Acta Dermato-Venereologica* points out, "A cynical view defines micrographically controlled skin surgery as a method for making one basal cell carcinoma pay as three." (page 3) Does that mean it should never be used or should be relegated to experimental study in a few centers? The overwhelming body of literature in support of Mohs micrographic surgery cannot be ignored. There are instances in which Mohs micrographic surgery is clearly the procedure of choice, instances in which it is not the treatment of choice, and unclear situations in which the benefits of Mohs micrographic surgery must be weighed against its drawbacks. As far as expense is concerned, the costs of larger excisions and more complicated repairs for recurrences must be considered. Cook and Zitelli[15] have shown that the average cost of Mohs micrographic surgery compares favorably with traditional surgical excision and is significantly less expensive than surgery performed in an ambulatory surgical facility.

Finally, the simple logic and elegance of a technique that examines the entire margin of a malignant tumor specimen, compared with alternatives that examine less than 1% of the margin, cannot be

Reprint requests: Mark Lebwohl, MD, Mount Sinai Medical Center, One Gustave L. Levy Place, Box 1048, New York, NY 10029.
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denied. We recognize that logic and elegance are not sufficient, without clearly documented outcomes, to justify the cost of an expensive technique, but when it comes to tumors that are known to have subclinical extensions, such logic is hard to ignore.

Curettage and electrodesiccation, surgical excision, radiation therapy, and cryosurgery are modalities that we should continue to use for the treatment of basal cell carcinoma. Ultimately, the treatment that should be used is the one that is deemed best for the individual patient by the practicing dermatologist.

Mark Lebwohl, MD
Jeffrey D. Bernhard, MD

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