DERMATOLOGICAL SURGERY

DIGITAL PHOTOMAPPING IN MOHS MICROGRAPHIC SURGERY AND THE INTEGRATION INTO AN ELECTRONIC HEALTH RECORD

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Introduction: At our Department for Mohs Micrographic Surgery we started using digital photomapping instead of free hand drawing in 2005. The aim of this new method was to obtain more accuracy and transparency of our Mohs procedures3.

Methods: The digital Mohs file consists of / includes different sections, starting with patient information, tumor- and procedure-related information. The first photo includes the clinical tumor without any drawings. The second one includes the tumor with margins and axes beside the tumor. After the excision, the axes, numbers of the different tumor specimens and colors used to paint the axes, are marked in the digital image. This digital image is then duplicated and used for marking of our histopathological findings. Different colors are used for marking malignant and pre-malignant and sometimes benign lesions. After the final Mohs stage, a picture of the reconstruction of the defect is taken to be included in the digital file. In the future we want to integrate the digital Mohs file into a digital health care record.

Discussion: The Mohs process includes multiple pivotal steps such as marking the tumor, processing the tissue, reading the slides and drawing the tumor in the file. During these steps small errors can easily occur that may decrease the accuracy of the Mohs process with the risk of unknown irradical surgery and finally resulting in recurrences. Using a digital Mohs file may increase the accuracy of the procedure. Using photos of the defect may result in a better correlation with the slides, which reduces the chance of excising tissue at the wrong location (especially useful in complex structures such as the ears, nose and medial canthus).
Another advantage of using digital files is that they support better communication between the Mohs surgeons and colleagues from other specialties such as plastic surgeons. The other specialist can use the digital files for preparing a complex reconstruction or other procedure. Furthermore, a copy of the digital Mohs files can be sent to the general practitioner and the referring physician, thus enhancing the communication. A strategic advantage is that the files can be used to explain the procedure to the patients and their relatives. Finally, the digital file is comprehensive and explicit which may also be helpful.

Conclusion: Digital photomapping of Mohs procedures increases the accuracy of the procedure and may therefore decrease the chance of errors. In the future we want to integrate the digital Mohs file into a digital health care record.

References:
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1 Komma achter Finally