A-405 - The basal cell carcinoma-one-stop-shop-study [Abstract]

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A-405
The Basal Cell Carcinoma-One-Stop-Shop-Study

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Background: The treatment of basal cell carcinomas (BCCs) poses significant challenges due to the invasive, time-intensive and costly nature of margin mapping techniques such as Mohs micrographic surgery.[1][2] To address these limitations, we developed the "BCC-One-Stop-Shop-Method", integrating in-vivo and ex-vivo margin mapping using Line-field Confocal Optical Coherence Tomography (LC-OCT). This method aims to streamline diagnosis, surgery and margin control process, allowing for completion within one patient visit. This study outlines the process, the results compared to histology and highlights its advantages in clinical practice.

Methods: BCC lesions were marked using color-coded tattoo pens to delineate margins in four quadrants. Dermoscopic mosaic images were captured for AI-assisted colocalization, ensuring precise margin mapping. LC-OCT was used in-vivo to record videos along the marked margins with an integrated AI providing real-time BCC probability scores. Images of the center were taken by LC-OCT to assess depth and subtype.

After excision, the tissue was placed in an ex-vivo setup, with the LC-OCT handheld adapted to a movable sample holder for imaging of the specimen. Videos and 3D stacks were recorded to confirm margin clearance. Then the tissue undergoes conventional histological processing for correlation with LC-OCT findings.

Results: 50 BCCs of 43 patients were examined, 32 lesions also with ex-vivo LC-OCT. 195 tissue quarters were evaluated and compared. 38 lesions were located on the head (76 %), 7 on the trunk (14 %), 5 on the extremities (10 %). 6 BCCs were superficial, 26 nodular, 14 infiltrative, 4 mixed subtypes and 1 was undefined. For in-vivo LC-OCT vs. histology sensitivity was 81.8 % (86.4 %), specificity 94.8 % (96.5 %) for the lesion (quarter) level. For ex-vivo LC-OCT vs. histology sensitivity was 71.4 % (86.6 %), specificity 96.0 % (96.4 %) for the lesion (quarter) level. Accuracy of overall performances for in-vivo for the lesion (quarter) level was 92 % (95.4 %), for ex-vivo 90.6 % (81.1 %).

Conclusions: Our study presents a new approach for integrating advanced imaging technologies into BCC management, offering a comprehensive solution for preoperative margin mapping and intraoperative evaluation. Initial findings suggest this method is efficient, easy to implement, and well-accepted by patients. Further studies will confirm its efficacy and potential in BCC treatment, potentially reducing the psychological and economic burden associated with traditional methods.

References:

[1] Cumberland Lara, Dana Ali, Liegeois Nannette, (2009), Mohs micrographic surgery for the management of nonmelanoma skin cancers, Facial Plast Surg Clin North Am, 325-335, 17
[2] Peris Ketty, Fargnoli Maria Concetta, Garbe Claus, Kaufmann Roland et al., (2019), Diagnosis and treatment of basal cell carcinoma: European consensus-based interdisciplinary guidelines, Eur J Cancer, 10-34, 118

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A-425
Treatment of multiple basal cell carcinomas with electrochemotherapy: a case series

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Background: Multiple basal cell carcinomas (BCC) are a characteristic feature of Gorlin-Goltz syndrome, caused by pathogenic variants in genes PTCH1, PTCH2 or SUFU. However, no pathogenic variant can be found in some cases. Ideal treatment for multiple and recurrent BCC in those patients should opt for high cure rate, minimal scarring, good aesthetic outcome,short healing time and mild side-effects. Electrochemotherapy (ECT) is a promising treatment method for patients with multiple BCC[1][2].

Methods: We present a series of 3 patients with multiple BCC, treated with intravenous bleomycin electrochemoterapy at the Department of Surgical Oncology, Institute of Oncology Ljubljana. Previously, all 3 patients received multiple sessions of criotherapy, skin tumor excisions and systemic vismodegib, with constant occurence of new lesions.

Results: Multiple BCC were treated with ECT with intravenous bleomycin in general anesthesia, following a protocol of standard operating procedures for ECT of skin tumours and skin metastases in years 2023 and 2024.