

Multiple Primary Recurrent Basaliomas (mPR-BCCs) of the Scalp with Cranial Bone Invasion

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Abstract

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We present a 68-year-old patient with multiple primary infiltrative BCCs in the scalp area, initially treated 14 years ago with superficial contact X-ray therapy, end dose 60 greys, followed by electrocautery (x2) several years later. He presented in the dermatologic polyclinic for diagnosis and therapy of two additional, newly-formed pigmented lesions, and because of an uncomfortable, itchy, burning sensation in the area where lesions had been treated years before. Screening cranial computer-tomography (CT) examination revealed two deformities in the form of tumor-mediated osteolysis, affecting the diploe of the tabula externa on the left parietal and parasagittal areas. Complete excision with removal of periosteum and partial removal of the tabula externa was planned with neurosurgeons at a later stage. BCC is one of the most common malignant skin tumours of the head and neck region (about 90% of cases) and is characterised by a significant potential for local infiltration and destructive growth. Recurrent, invasive BCC of the scalp and calvarium is a difficult problem for which universally accepted treatment protocols had not been established. The primary treatment of aggressive BCCs is surgical, with a thorough examination of excision margins to ensure complete resection. Procedural-based options include standard excision, curettage, curettage with electrodesiccation, and Mohs micrographic surgery (MMS), with MMS being the gold standard for the definitive treatment of BCC. Improper removal or electrocautery (as in our case) of the several aggressive forms of BCC seems to be a particular problem, and not only for dermatologic surgeons. The risk of subsequent invasion and destruction of the cranium, underlying dura, and cranial nerves by basal cell carcinoma (BCC) is extremely low, with an estimated incidence of 0.03%, but is a potential complication over time. Computed tomography is the modality of choice for detecting tumour invasion into bone, which commonly appears as irregular demineralization or osteolysis.

We present a 68-year-old patient with multiple primary infiltrative BCCs in the scalp area, initially treated 14 years ago with superficial contact X-ray therapy, end dose 60 greys, followed by electrocautery (x2) several years later (Fig. 1a). He presented in the dermatologic polyclinic for diagnosis and therapy of two additional, newly-formed pigmented lesions, and because of an uncomfortable, itchy, burning sensation in the area where lesions had been treated years before (Fig. 1a-d).

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tabula externa on the left parietal and parasagittal areas. Complete excision with removal of periosteum and partial removal of the tabula externa was planned with neurosurgeons at a later stage. BCC is one of the most common malignant skin tumours of the head and neck region (about 90% of cases) and is characterised by a significant potential for local infiltration and destructive growth [1]. Recurrent, invasive BCC of the scalp and calvarium is a difficult problem for which universally accepted treatment protocols had not been established [2]. The primary treatment of aggressive BCCs is surgical, with a thorough examination of excision margins to ensure

complete resection [3]. Procedural-based options include standard excision, curettage, curettage with electrodesiccation, and Mohs micrographic surgery (MMS), with MMS being the gold standard for the definitive treatment of BCC [4].

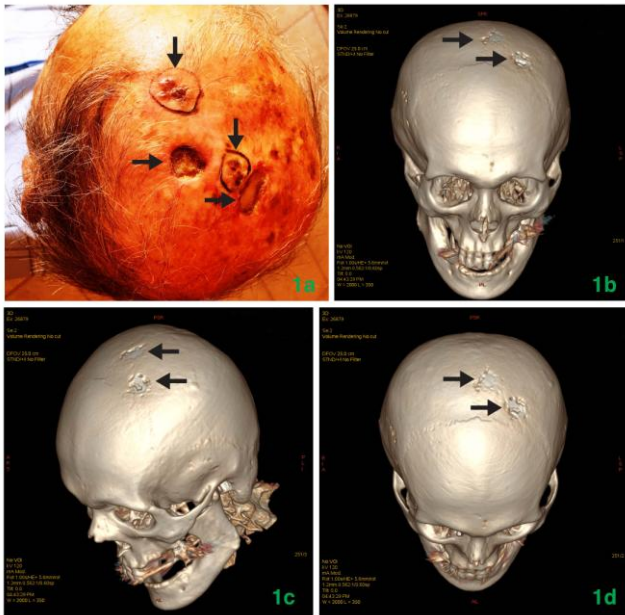


Figure 1: Lesions of the scalp in our patient. 1a) Ulcerated lesions - see horizontally oriented arrows. Horizontally oriented arrows also show histopathologically verified infiltrative BCCs that had been treated in the past. Vertically oriented arrows show newly pigmented BCCs; 1b-d) Horizontally oriented arrows show the older BCCs, treated in the past via radiation and electrodesiccation

Improper removal or electrocautery (as in our case) of the several aggressive forms of BCC seems to be a particular problem, and not only for dermatologic surgeons. The risk of subsequent invasion and destruction of the cranium, underlying dura, and cranial nerves by basal cell carcinoma (BCC) is extremely low, with an estimated incidence of 0.03%, but is a potential complication over time [5]. Computed tomography is the modality of choice for detecting tumour invasion into bone, which commonly appears as irregular demineralization or osteolysis [5].

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