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Coexistence of cutaneous squamous cell carcinoma and undifferentiated pleomorphic sarcoma: clinical case

Zornitsa Mihaylova[1], Evgeniy Aleksiev[2], Pavel Stanimirov[3], Radomir Ugrinov[4]
[1] *Dept. of Oral and Maxillofacial surgery, Faculty of Dental medicine, Medical University-Sofia, Bulgaria*
[2] *Dept. of Oral and Maxillofacial surgery, Faculty of Dental medicine, Medical University-Sofia, Maxillofacial surgery clinic, Alexandrovska hospital, Bulgaria*
[3] *Dept. of Oral and Maxillofacial surgery, Faculty of Dental medicine, Medical University-Sofia, Maxillofacial surgery clinic, Alexandrovska hospital, Bulgaria*
[4] *Dept. of Oral and Maxillofacial surgery, Faculty of Dental medicine, Medical University-Sofia, Maxillofacial surgery clinic, Alexandrovska hospital, Bulgaria*
Corresponding Author: Zornitsa Mihaylova

Abstract: *We report a case of coexistence of squamous cell carcinoma (SCC) and undifferentiated pleomorphic sarcoma (UPS) on the capillicium. Non-radical surgical removal of SCC with the same location has been performed 7 years ago. Local recurrency with additional neoplastic cells is observed. Wide surgical excision was our treatment of choice.*

Keywords*: squamous cell carcinoma, pleomorphic sarcoma*

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I. Introduction

Squamous cell carcinoma (SCC) is the second most common skin cancer, as in many countries worldwide its incidence is raising [1]. In the maxillofacial area SCC is usually found in the oral cavity.However, skin SCC also occurs especially in patients with sun-damaged skin, preneoplastic lesions, etc. In Bulgaria SCC reaches nearly75% of malignant tumors in the oral cavity. Survival rates for SCC patients have remained relatively unchanged forthe past 30 years, despite advances in diagnosis andmanagement[2].

Soft tissue sarcomas are much less common than SCC. These neoplasms account for less than 1% of all malignancies [3]. Nearly 50 types of soft tissue sarcomas have been described histologically [4]. Soft tissue undifferentiated pleomorphic sarcomas (UPSs) are rare tumors with similar microscopic features but having various patient outcomes [5]. UPSs are spindle cell neoplasms with marked cytological pleomophism, atypical cell forms and mitosis [6]. Histological grade and tumors size are considered the most significant prognostic factors for soft tissue sarcomas [7].

We present a clinical case of patient with skin SCC and coexistence of UPS. To the best our knowledge this is the first case published of a patient having postradiation SCC as a main lesion mixed with pleomorphic sarcoma cells.

II. Case report

A 69-year-old man was referred with complaints of slow growing, non-healing and painless lesion on the capillicium. The lesion has appeared nearly a year ago and the patient has mechanically traumatized the area several times. Histopathological examination revealing SCC (G2 stage) has been performed 2 weeks ago by dermatologist.

Clinically the lesion is 2/2,5cm in size with irregular shape, nonhomogeneous color and multicentric appearance. Smaller neighboring lesion is observed. Both formations are having crusts and are painless on palpation (Fig. 1). The skin surrounding the lesions is atrophic due to the radiotherapy. No enlarged regional lymph nodes are found on palpation.

Seven years ago SCC with the same location has been surgically removed. Due to the non-radical surgical excision radiotherapy has been conducted.

The lesions on the capillicium were surgically removed with clinically wide margins extending beyond the neoplasm. Free skin graft from the hand was taken for the reconstruction of the surgically treated site. Histopathological examination reveals coexistence of SCC and UPS. The results were confirmed by second review of the samples. Currently the patient is having 2 more lesions with clinical features of neoplasms. Additional surgery will be conducted.

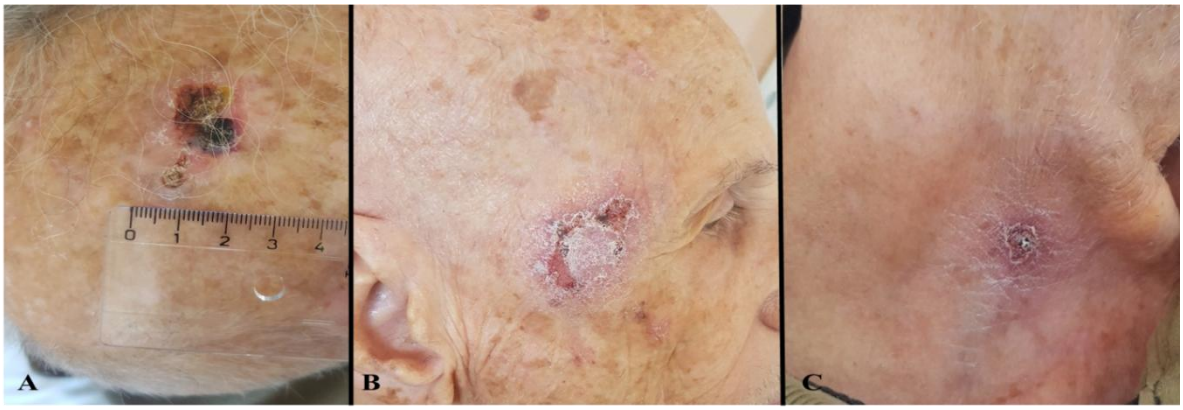

Fig. 1 A-lesion on the capillicium, reccurency of SCC coexistent with UPS; B, C-two lesions in the temporal and cervical spaces

III. Discussion

Skin SCC is a malignant proliferation of keratinocytes usually arising from the epidermis. It may present as an indurated nodular formation or ulceration with crusts, or may have a clinical presentation of an ulcerated lesion without evidence of keratinization. Patients with SCC are at high risk of regional lymph nodes metastasis. The reported incidence of metastazing skin SCC ranges from 0,5% to 16% [8]. However, based on our own experience we may conclude that the metastasis incidence is higher. We have experience with patients evolving cervical lymph nodes metastasis less than 1 month after surgical removal of the primary tumor without any lymph nodes pathology found on the imaging methods of examination at the first visit (data not published). High risk primary skin SCCs are associated with high incidence of local metastasis and recurrency[9]. Therefore, when surgical excision is a treatment of choice, wide enough surgical margins extending well beyond the primary tumor are having better prognosis than a narrow margin. Based on our experience with SCCs, surgical margins around the tumor border of 1.0cm, 1.5cm or 2.0cm are considered sufficient to completely remove the primary tumor mass. Mohs` micrographic surgery is considered to have excellent cure rates in high-risk SCC and difficult sites for surgery when functional impairment is expected [10].

Soft tissue UPS is much less common than SCC, however the tumor can arise anywhere in the body where mesenchymal or ectodermal tissue is found [11]. The diagnosis of these tumors still remains controversial. A precise sampling and work-up are required to exclude other diagnosis, i.e. melanoma, non-melanoma skin cancer, angiosarcoma, etc. [12]. The poor prognosis in patients with OPS is related to occult or diagnosed metastasis when the diagnosis is established.

To the best of our knowledge a clinical case of a patient with recurrent cutaneous SCC coexistent with UPS has not previously been reported. The etiology of the coexistent SCC and UPS in our case is probably due to the lack of previews radical surgical excision and the effects of the following radiotherapy. It is well known that one the chief risk factors for skin sarcoma development is the ionizing radiation [13]. A second radiotherapy in the already irradiated tissues with carcinoma recurrence is contraindicated, thus the treatment of choice in the presented clinical case is complete surgical removal of the whole tumor together with 1,5cm excision of the macroscopically normal non-neoplastic tissue around the lesion. The surgical wound was covered by free skin graft taken from the arm. Surgical removal of the other 2 lesions will be performed in the next stage of the treatment.

IV. Conclusion

Our clinical case reveals the risk of rare complications in patients with neoplastic lesions. Early diagnosis and treatment improves the survival of patients with malignancies in the maxillofacial area. Accurate treatment plan and long term follow up is required to reduce the risk of metastasis, local recurrency and newly formed tumor growth.

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