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Case Report

Invasive Squamous Cell Carcinoma of the Cervix with Foci of Sarcomatoid Differentiation: About A Case

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Abstract

Squamous cell carcinomas represent approximately 90% of cervical cancers. Squamous cell carcinoma with sarcomatoid differentiation is a rare histological variant with a very limited number of cases reported in the literature. This entity has been described more frequently in other locations (oral cavity, pharynx, esophagus, skin and larynx). It usually affects postmenopausal women. The histological diagnosis is based on a squamous cell carcinoma fusing with a spindle cell component. Cytokeratin is positive in both components. Because of its rarity, no treatment recommendations are available and it is generally managed as a squamous cell carcinoma of the cervix. We report a case of a 70-year-old female patient presenting an invasive squamous cell carcinoma of the cervix with foci of sarcomatoid differentiation.

Key words: Cervix, Squamous cell carcinoma, Sarcomatoid.

INTRODUCTION

Squamous cell carcinoma with sarcomatoid differentiation is a rare histological variant with a very limited number of cases reported in the literature. It is characterized by a poor prognosis with a high risk of recurrence and distant metastasis. We report a case of a 70-year-old female patient presenting an invasive squamous cell carcinoma of the cervix with foci of sarcomatoid differentiation.

CASE REPORT

We report the case of a 70-year-old female patient with a history of right mastectomy who presented with pelvic pain with altered general condition. Examination of the uterine cervix revealed a suspicious friable appearance associated with significant vaginal ulceration. A cervico-vaginal smear and biopsies were performed and referred to our training.

Microscopic study showed on cervico-vaginal smear the presence of high grade squamous cell atypia (H-SIL) with suspicion of invasion. Biopsy fragments showed invasive and keratinizing moderately differentiated squamous cell carcinoma with the presence of foci of sarcomatous-like cells without the presence of vascular emboli or perineural engorgement. Immunostaining showed diffuse positive labeling of tumor cells and sarcomatous-like cells by AE1/AE3, CK5/6, and EMA antibodies and negative labeling of tumor cells and sarcomatous-like cells by Desmin and Myogenin antibodies.

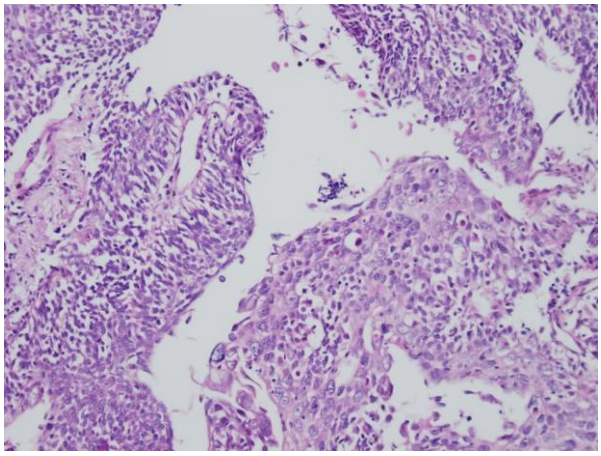

Fig-1: Squamous cell carcinoma fusing with a spindle cell component (HEx20).

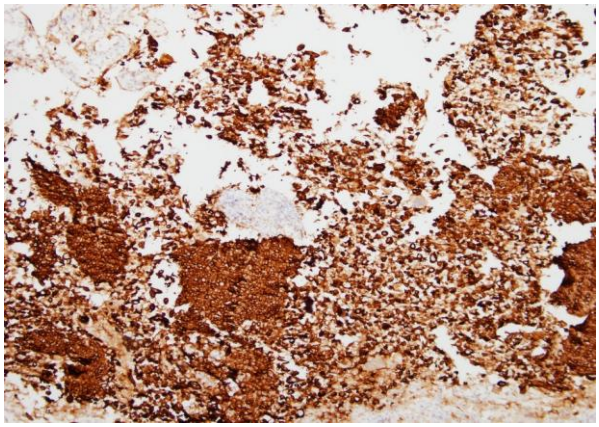

Fig-2: Coexpression of cytokeratin AE1/AE3 (HEx20)

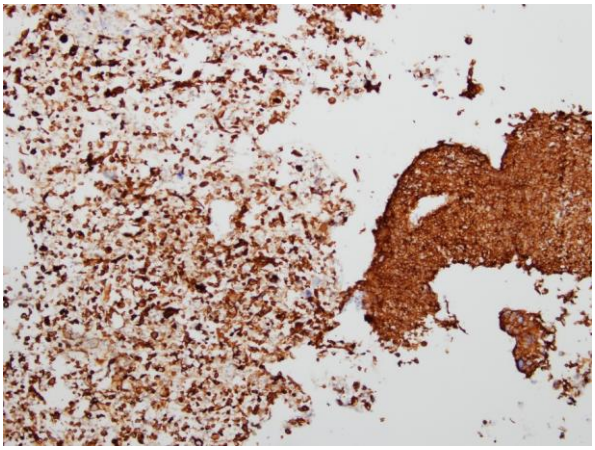

Fig-3: Coexpression of CK5/6 (HEx20)

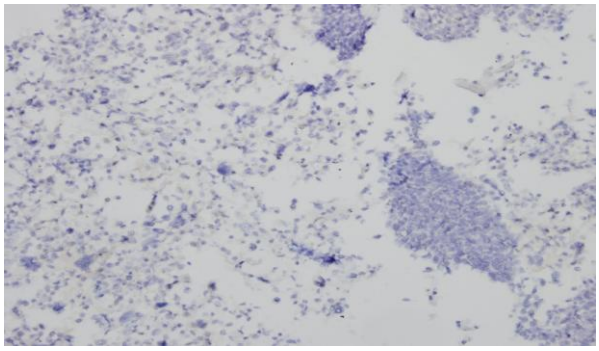

Fig-4: Negative staining for Desmin (HEx20)

DISCUSSION

Squamous cell carcinoma (SCC) is the most common malignancy of the cervix, while cervical cancer is the second or third most common malignancy in women worldwide [1]. It accounts for 80% of cervical cancers and is classically preceded by precancerous changes detectable by cervical smear [2]. Sarcomatoid squamous cell carcinoma of the cervix is a rare and aggressive tumor, of which only 16 cases have been reported in the literature to date [3]. Sarcomatoid carcinoma tends to affect the upper aerodigestive tract (larynx, pharynx, and esophagus) and skin and accounts for only 1-2% of all gynecologic malignancies [2]. As with the most common types of cervical cancer, HPV is the major etiologic factor identified to date, including the high-risk subtypes 16 and 18 that has been found in the squamous and sarcomatoid components of the tumor [2]. The recent World Health Organization (WHO) classification of gynecologic tumors distinguishes several histomorphologic variants of cervical SCC: keratinizing, non-keratinizing, basaloid, verrucous, verrucous/condylomatous, papillary, squamotransitional, and lymphoepithelioma-like carcinoma. However, the WHO classification does not describe the rare sarcomatoid squamous cell carcinoma (SSCC) although it has been described in the literature [1]. As with the more common subtypes, sarcomatoid tumors increase in frequency with age; the median age at presentation is 67 years. Women usually present with symptoms at diagnosis, with abnormal vaginal bleeding or foul-smelling discharge. Cervical lesions are readily apparent on physical examination [2]. The histopathologic diagnosis of SSCC is based on a squamous cell carcinoma fusing with a spindle cell component. Pathologically, the transition between squamous cell carcinoma and spindle cells can be demonstrated in this entity. Giant cells can also be observed [3]. Immunohistochemistry is usually positive for mesenchymal and epithelial components such as cytokeratin and vimentin [2]. PET is useful for pretherapeutic evaluation because it can exclude distant metastases in this aggressive tumor [3]. The FIGO system is used for staging of the disease [2]. It differs from squamous cell carcinoma of the cervix in that it has a poorer prognosis, as it is an aggressive neoplasm with a short disease-free survival [3]. It is aggressive, progressive and usually diagnosed at a late stage. Metastasis to the kidney, peritoneum, and subcutaneous tissues has been described in the literature [2]. Like sarcomas, SSCC is a highly progressive cancer with a poor survival rate. Other prognostic factors include the degree of differentiation, extent of carcinomatous component, tumor size, and age at presentation [2]. Because of the lack of data and recommendations, these patients have been treated along the broad lines of treatment defined for squamous cell carcinoma of the cervix, with dismal results [3].Surgery is the treatment of choice for early stage disease [2]. The size of the tumor, the status of the margins and the biology of the tumor determine the need for adjuvant radiotherapy after resection for local prevention of recurrence. Radiation therapy has been shown to reduce local recurrence and can save approximately 25% of patients. In view of the low survival rates and the aggressive nature of the tumor, the addition of new chemotherapeutic agents should be explored for this tumor [3].

CONCLUSION

Invasive squamous cell carcinoma with sarcomatoid differentiation represents a very rare entity of squamous cell carcinoma of the cervix with a poor

prognosis despite treatment. It is characterized by very high recurrence potential and frequent distant metastases. Radiation therapy has been shown to reduce local recurrence and can save approximately 25% of patients. The addition of new chemotherapeutic agents is discussed.

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