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Low grade malignant eccrine spiradenoma with florid squamous differentiation-a potential diagnostic pitfall

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Abstract

Background: Malignant eccrine spiradenoma is an exceedingly rare tumor of cutaneous adenxal origin. It usually arises from a pre-existing eccrine spiradenoma and typically manifest as rapid enlargement in long-standing spiradenomas. It has two distinct patterns; high-grade carcinoma and low-grade tumor imitating benign spiradenoma. Low grade MES have subtle microscopic features that are more difficult to diagnose and are said to have a better prognosis. MES frequently shows focal squamous differentiation, which may be florid in rare instances. We describe the diagnostic difficulties encountered in a case of low grade malignancy in a eccrine spiradenoma with florid squamous differentiation. The tumor was removed 2 months after rapid increase in size of a long standing nodule over the left forearm was noted by the patient. Histopathological examination showed the earliest stage of malignant transformation within eccrine spiradenoma, characterized by mild nuclear pleomorphism, loss of two cell types, increased mitotic activity with atypical mitoses and florid squamous differentiation. PAS stain outlined a partial loss or destruction of PAS positive basement membrane in the malignant area. There was no evidence of vascular invasion. P53 was not expressed in benign areas, whilst in malignant areas occasional nuclear reaction was noted. The motive behind presenting this case is to highlight importance of recognizing some of the histological features of early malignant transformation in a rapidly increasing eccrine spiradenoma and diagnostic difficulties that can arise due to florid squamous differentiation in these tumors.

Keywords

eccrine spiradenoma, spiradenoma

Background

A 29 year old male gave quickly expanding nodular mass over the left lower arm. The mass was little and easy at first and patient saw it since two years. There was increment in the size of mass since twomonths and it was related with torment. On assessment, there was a nodular, firm mass over the upper piece of left lower arm estimating 3 × 2 cms in size. The mass was delicate and was not fixed to the fundamental designs. There was no tangible lymph hub in the axilla. The mass was extracted and shipped off us for histopathological assessment.

Histopathological assessment uncovered a nodular tumor situated in the dermis. The overlying epidermis showed hyperplastic changes. At higher amplification, one of the knob included interweaving ropes of cells isolated by edematous connective tissue. These strings were comprised of two cell types, comprising of fringe line of cells with little dim cores and focal point of the ropes comprised of cells with enormous pale cores. These bigger cells were oftentimes masterminded around lumina containing eosinophilic PAS positive diastase safe material. A weighty lymphocytic invasion was available fundamentally at the fringe segments of the tumor, yet some were likewise dissipated between the tumor cells. Mitotic figures were missing. These highlights were reminiscent of eccrinespiradenoma. One of the knobs demonstrated cystic degeneration. Be that as it may, biggest of the knob was inadequately encompassed and demonstrated broad squamous separation all through the knob [Figure 1]. Also, there was loss of separation between two cell types with single kind of tumor cells uncovering mellow pleomorphism, slight atomic inconsistency, various apoptotic bodies and expanded mitotic figures (5-6/10 HPF) [Figure 2]. Intermittent mitotic figures were atypical. There were central regions uncovering run of the mill spiradenoma at the periphery.There was no proof of tumor rot or vascular intrusion by tumor cells.PAS plot incomplete loss of PAS positive cellar layer in the dangerous area.p53 was not communicated in generous areas,wheras expanded atomic p53 articulation was noted in harmful zones [Figure 3]. Ki 67 score was under 1% in favorable regions and was expanded (4-5%) in the threatening zone [Figure 4]. These histological highlights were reminiscent of the most punctual phase of dangerous change inside spiradenoma. A determination of second rate dangerous eccrinespiradenoma with flowery squamous separation was delivered. Chest radiographs and stomach ultrasound neglected to uncover any proof of metastatic sore.

Eccrinespiradenoma is a very much separated kind tumor of the perspiration organs. Harmful change emerging inside eccrinespiradenoma is uncommon. The harmful change in eccrinespiradenoma happens after a variable dormant period, which might be up to 75 years. It for the most part conceives clinical consideration when a prior undiscovered sore quickly amplifies, changes tone, ulcerates, or gets agonizing and delicate. As indicated by the evaluations of Marenda and Otto, harmful perspiration organ tumors represent just 0.005% of all skin tumors.

MES is a histologically heterogenous tumor and, it has two particular paterns; high-grade carcinoma and poor quality tumor emulating favorable spiradenoma. The last is hard to determine as it presents to have unpretentious histological changes. Accordingly, pathologists should look at all eccrinespiradenomas cautiously considering threatening transformation.Histologically, multiplication of cells with hyperchromatic cores, expanded mitoses, atypical mitoses, loss of Periodic-Acid-Schiff positive cellar layer, and attack of the encompassing tissues describe harmful change in eccrinespiradenoma.

The reason for threatening change is obscure. Beirnat et al. Exhibited overexpression of p53 protein in the harmful bit of eccrinespiradenoma. Immunostaining for p53 stayed negative in favorable bit. Comparative outcomes for p53 staining were additionally seen for our situation, supporting their decision that the gathering of p53 protein,which came about because of change in its turnover, went with the threatening

change. These outcomes likewise recommended the value of p53 staining in the recognition of dangerous change.

Dangerous eccrinespiradenoma metastasizes to local lymph hubs, lungs, cerebrum, and liver in a dropping request of recurrence. While inaccessible metastases of MES are extraordinary, they for the most part forecast a foreboding anticipation. Fitting treatment of harmful eccrinespiradenoma comprises of a wide nearby extraction with resection of clinically dubious lymph hubs. Illumination of the resection site can be valuable in forestalling neighborhood repeat. The part of chemotherapy isn't yet plainly characterized. Indicative improvement and shrinkage of the tumor with tamoxifen treatment in a patient with estrogen receptor-positive eccrine adenocarcinoma has additionally been accounted for. However, the parts of hormonal treatment and different modalities, for example, restricted postoperative radiation treatment, prophylactic lymph hub analyzation chemotherapy actually stay to be resolved. Close development of these patients for early location of repeat and metastases is suggested. Our patient has tumor free edge, no obvious lymph hub in the axilla or proof of removed metastasis; accordingly, he was not put on any adjuvant treatment.

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