Eccrine spiradenoma presenting as leg swelling: A case report of rare presentation

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ABSTRACT

Eccrine spiradenoma (ES) is an uncommon benign adnexal tumor of the skin. The highest rate of incidence is observed among young adults, without any sex predilection. The most common site of presentation is the head and neck and ventral aspect of the trunk. We report a case of 80-year-old male who presented with leg swelling for the past 25 years. Cytosmear showed tight clusters of multilayered, uniform, cuboidal cells arranged at places around pink hyaline material. Cells were uniform with scant cytoplasm, round-to-oval nuclei, and inconspicuous nucleoli. A differential diagnosis of skin adnexal tumor and adenoid cystic carcinoma was considered. The histologic findings confirmed ES. Cytological features of ES are sparsely reported in the literature. Although histopathological examination is considered to be the gold standard with characteristic diagnostic features, cytology can also play an important role in the management of such rare adnexal tumors.

Key words: Adnexal tumors, eccrine, spiradenoma

INTRODUCTION

Eccrine spiradenoma (ES) is a rare benign adnexal tumor which arises from duct of eccrine sweat gland.¹ Most commonly involved patient age group is the second to fourth decade. Most common site of presentation is the ventral aspect of the body, proximal extremities, and occasionally on the ear, eyelid, lip, and hand.²

ES can present either as single, tender, well-circumscribed intradermal nodule, or as multiple lesions. Solitary ES comprises more than 97% of the cases and has similar incidence in men and women, whereas multiple ES is more common in females (M:F ratio of 1:3).¹³ Rare malignant transformation has been reported in the literature, mostly after 20-30 years of chronicity.³

Histopathological diagnostic criteria of various adnexal tumors are well documented in the literature, whereas cytological criteria are sparsely reported. Furthermore, exact cytological diagnosis of adnexal tumors is very difficult due to multiple lines of differentiation of various adnexal tumors. We hereby report a case with cytohistological correlation of ES in an elderly male patient.

CASE REPORT

An 80-year-old male presented to cytology clinic with a mildly tender slow-growing swelling for the past 25 years. On physical examination, the swelling was firm, mobile, slightly tender, measuring 3 × 2 cm in diameter.

Fine-needle aspiration yielded blood mixed aspirate. Cytosmears were moderately cellular and showed uniformly sized cuboid cells with scanty cytoplasm, round-to-oval nuclei, and inconspicuous nucleoli. At places, these cells were arranged around hyaline material. Sheets of these epithelial cells also showed interspersed spindle-shaped myoepithelial cells with regular nuclear contour and scanty cytoplasm. Background shows few scattered lymphocytes. [Figure 1a-c] On the basis of above cytological features, two differential diagnosis, skin adnexal tumor and adenoid cystic carcinoma, were considered.

Excision was advised for exact categorization. Resected gross specimen showed a skin covered tissue measuring 4 × 4 × 2 cm. Cut surface showed multiple grayish-white nodules ranging in size from 0.5 to 1.5 cm in diameter, in the dermal region with no connection to overlying epidermis. Histopathological sections showed multiple basophilic lobules separated by hyalinized stroma in the dermis. Lobules showed interwining cords around edematous connective tissue, trabecular arrangement, and hyaline globules of varying sizes. These cords were lined by small cells having dark nuclei, and in the center, there were few large cells with scant cytoplasm and pale nuclei [Figure 1d]. No mitosis or areas of cystic changes was seen. Final diagnosis of ES was given. The patient is on follow-up and has not reported any recurrence.

DISCUSSION

Eccrine sweat glands are the skin appendages and are composed of three segments - acrosyringium (intraepidermal duct), intradermal duct, and secretory coil lying in reticular dermis.⁴ ES are uncommon benign adnexal tumors which rarely involve...
Due to very few cases reported in the literature, Hidradenoma cytologically involvement on cytological smears. Chondroid syringoma is synonymous to pleomorphic adenoma of salivary gland with epithelial and myoepithelial cells in a chondromyxoid stroma.[6]

On histopathological examination, ES shows single to multiple sharply demarcated lobules in the dermis without any epidermal connection. These lobules appear to be deeply basophilic due to close aggregation of the nuclei. The tumor lobules are comprised of two types of cells arranged in intertwining cords around islands of edematous connective tissue. Both types of cells have scant cytoplasm. The smaller one with dark nuclei is located at the periphery of cellular aggregates, and the second type with large pale nuclei is present toward center. Rosettes may be formed in the absence of luminae. In between the tumor cells, hyaline droplets may be present.[4]

Malignant transformation is rare and takes place in longstanding lesions. Surgical excision is the mainstay of treatment and as recurrence is reported to close follow-up of the patient is required.

CONCLUSION

ES is a rare benign adnexal tumor which can very rarely present as a leg swelling. Histopathological examination is considered to be the gold standard for diagnosis; however, with characteristic diagnostic features, cytology can also play an important role in the management of such rare adnexal tumors.

REFERENCES


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