

Deceptive Facade of Spiradenoma: A Case Report

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Abstract: Spiradenoma is a rare benign adnexal neoplasm occurring in young adults as a solitary skin colored or bluish nodule usually less than one cm. in diameter. It may be mistaken for a glomus tumor or angioleiomyoma due to its painfulness or florid vascularization. We present a case of spiradenoma occurring in a 41 year old male as a subcutaneous nodule on the right thigh. The lesion measured 1.8x1x1 cm. Histologically, a tumor with features of spiradenoma was seen. Also, there were numerous dilated vascular spaces containing pinkish fluid and red blood cells. Spiradenomas more than two cm in size, with prominent vascularity have been reported as giant vascular eccrine spiradenoma. This case shows that prominent vascular pattern can be seen not only in the giant variety but also in smaller spiradenomas. Failure to recognize the various morphological features may lead to an erroneous diagnosis of angiomatous lesion.

Keywords: Benign adnexal neoplasm, Spiradenoma, vascular

INTRODUCTION

Spiradenoma is a rare, benign adnexal neoplasm that has been historically designated as a tumor of eccrine differentiation [1]. Kersting and Helming described this condition in 1956, as a rare benign tumor that develops from the eccrine glands [2]. It usually presents as a solitary nodule [3, 4]. Multiple lesions with a zosteriform distribution is less common [5, 6]. Long standing Eccrine spiradenoma (ES) may undergo malignant transformation hence early definitive diagnosis of ES becomes important. Its malignant counterpart though rare is quite aggressive [7]. Spiradenomas with a high degree of vascularity can be confused clinically and microscopically with vascular tumors [8].

CASE REPORT

A 41 year old male presented with a subcutaneous nodule on the right thigh since two years which had been gradually increasing in size. The nodule was firm in consistency, tender on palpation. Clinically a diagnosis of sebaceous cyst was made. The nodule was excised and sent for histopathological examination.

Biopsy report

Gross

The specimen consisted of a skin covered bit of tissue measuring 2x1x1cm. On bisection a well demarcated lesion measuring 1.8x1x1cm. was seen just

beneath the surface. It was lobulated, grey white, firm and exuded pinkish fluid.

Microscopy

Sections stained with haematoxylin & eosin showed a tumor composed of sharply demarcated lobules in the dermis which did not connect with the overlying epidermis (Fig. 1). The tumor cells were of two types arranged in cords, tubules and sheets. One type of cells were large, lighter staining with vesicular nuclei, closely packed and at places surrounding a central lumen (Fig. 2). The other types of cells were small with compact nuclei and mainly arranged at the periphery. There were numerous dilated vascular spaces containing pinkish fluid and red blood cells (Fig. 3). Lymphocytes were scattered within the tumor. Hyaline material was present between the cords and also within them (Fig. 4).

Differential diagnosis (DD)

Spiradenoma may be easily mistaken for other lesions like glomus tumor, cutaneous lymphoid hyperplasia and angioleiomyoma, or other vascular lesions that also present with tenderness / pain. A DD of spiradenoma, glomus tumor and cutaneous lymphoid hyperplasia was made. Spiradenoma is distinguished from other lesions by the presence of (a) two cell population, (b) occasional tubular structures and (c) hyaline globules within the lumen. Based on

histological features, a diagnosis of spiradenoma was made.

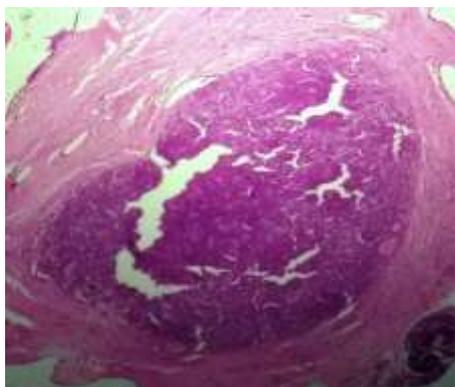


Fig. 1: Tumor composed of sharply demarcated lobules in the dermis (H&E;x40)

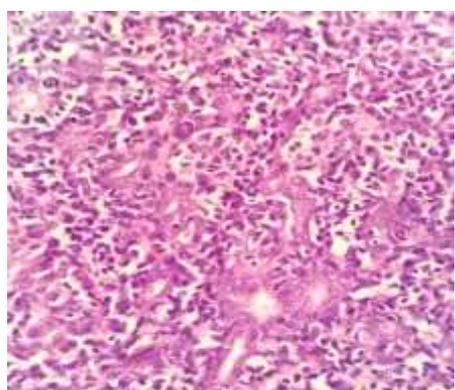


Fig. 2: Large, pale staining cells in the center and small, dark cells at the periphery (H&E;x400)

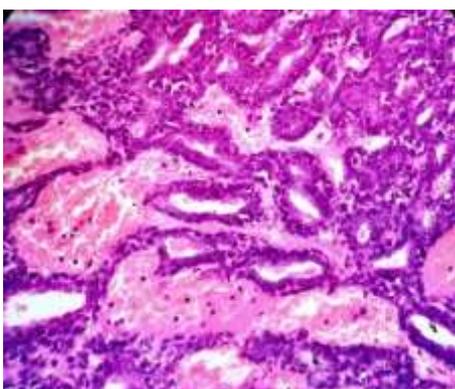


Fig. 3: Numerous vascular spaces (H&E;x400)

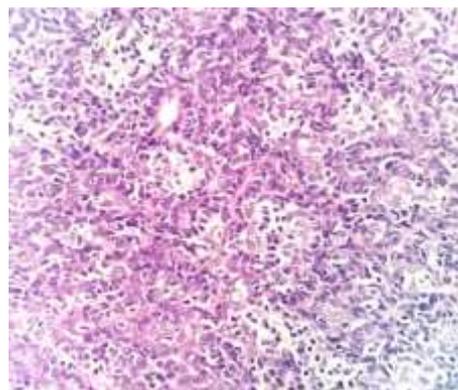


Fig. 4: Hyaline material between cords of cells (H&E;x100)

DISCUSSION

Spiradenoma is a rare benign adnexal tumor of eccrine origin [9]. Clinically it arises in patients between ages of 15-35 years. It is most commonly seen on the trunk followed by extremities, head and neck. It usually manifests as a small (less than one cm.) solitary, grey, pink, purple red or blue dermal or subcutaneous nodule [9]. It may occasionally be upto five cm. in diameter with a cystic or sponge-like consistency.

Histologically it presents as one or more intradermal lobules without any connection to the epidermis and is composed of two types of epithelial cells: small darkly staining basaloid cells at the periphery of the tumor nests and larger, paler cells in the center [9].

Malignant transformation is extremely rare and generally arises from long standing ES [7, 10].

The presence of concomitant cylindroma and trichoepithelioma in certain ES patients may enhance the possibility of Brooke-Speigler syndrome [7].

It has been reported that the spiradenoma and cylindroma may represent two extremes of a continuous spectrum of dermal tumors originating from a common progenitor [1].

Historically ES is considered as the tumor of eccrine lineage, but according to current view it may arise due to an apocrine process [1, 11].

The immunophenotyping of the tumor exhibits positive reactivity to cytokeratin (CK5/CK6, CK8/CK18), S100 protein, EMA and SMA [7].

The present case had presented as a solitary tender nodule over the right thigh in a middle aged male. Histopathological findings were those of classical spiradenoma along with numerous prominent vascular spaces. Numerous vascular spaces that are often dilated containing lymphatic fluid, red blood cells or both may

sometimes be so prominent as to impart a vasogenic appearance to the tumor.

In literature, spiradenoma with prominent vascularity has been reported as giant vascular eccrine spiradenoma [9]. It is distinguished by its larger size of more than two cm. and high vascularity [12, 13]. The present case shows that prominent vascular pattern is not restricted to giant variety but may also be seen in small spiradenomas.

Treatment is surgical excision which is currently the gold standard option, with low rate of recurrence [7].

CONCLUSION

Spiradenoma is rare benign skin adnexal tumor and is usually misdiagnosed on primary examination because of the non-specific clinical findings. Failure to identify its various morphological features may lead to a mistaken diagnosis and sometimes over treatment. Spiradenomas of small size, less than two cm. can have high vascularity and should not be mistaken for a vasogenic tumor.

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