INTRODUCTION

Myofibroblastoma is a benign rare stromal tumor seen mostly in elderly men. [1, 2] The gross appearance is of a small well circumscribed nodule usually not exceeding more than 3 cm in size (Figure-1). It is a spindle cell neoplasm of breast exhibiting features of fibroblasts and smooth muscle cells. The myofibroblastic differentiation presents a discrete, firm, sharply circumscribed freely movable mass with variable immunohistochemical reactivity to desmin, vimentin, actin and CD34. This case report is of a breast myofibroblastoma in a 51-years-old female discovered during routine mammography evaluation.

Case History

This is a 51 years-old female, G5 P4 A1 and menarche at 10 years of age with past medical history remarkable only for gastroesophageal reflux disease, hiatal hernia and asthma. Surgical history remarkable for left oophorectomy with pathology reported as benign simple cyst and endometriosis. The patient was not using any medication but presents a positive toxic history of 39 pack-years tobacco abuse.

The patient presented with an incidental finding of a left breast mass during routine mammography measuring 1.5 cm and localized at left...
upper external quadrant extending from the middle to posterior third of the breast. It was described as a well circumscribed heterogeneous in echotexture lesion with a fat content and associated halo sign. The lesion was not palpable and there were no axillary lymphadenopathies identified. The skin over the lesion was smooth and intact without evidence of ulcerations, discoloration or hyperpigmentation. Patient denied tenderness, weight loss, nipple discharge or constitutional symptoms. Mass excision was performed in December 2008, with report of clear surgical margins. The size of the lesion was 2.8 cm x 2.6 cm x 2 cm. Pathology was reported as Myofibroblastoma (see Figure 1), CD 34 positive, smooth muscle actin positive, HMWK negative, pankeratin negative and S-100 negative. The patient was followed closely for several months without clinical evidence of recurrence after the excisional biopsy procedure.

**DISCUSSION**

Mammary myofibroblastoma is a rare benign tumor first recognized by Wang et al. In most cases, myofibroblastoma is composed of fascicles of spindle shaped cells separated by bundles of dense collagen (see Figure 2). Immunoreactive to CD34, smooth muscle actin, vimentin and with a variable focal positively for desmin. It is usually negative for cytokeratin AE1/A3 and S-100. Myofibroblastoma is the only mammary neoplasm more frequent in men than in women. Its extra-mammary presentation is described to be more frequent as well, in males than females. Most cases display strong staining for androgen receptor not seen in other spindle cell tumors. Upon correlation with several different reports, it seems to occur more commonly in patients under androgen ablation therapy and older male patients, which correlate with a decrease in androgen hormones [3,4]. Radiologically, the tumors are homogenously lobulated and well circumscribed and they lack micro calcifications [8].

Myofibroblastoma can express CD34 antigen with morphology similar to that of a solitary fibrous tumor, for which a common origin of both tumors has been suggested. However, there is enough difference in the cytologic composition and immunohistochemical profile to consider them distinct entities. Solitary fibrous tumors have been reported to have prominent hemangiopericytomatus vessels and a desmin negative immunohistochemistry [3, 5]. Moreover, some cases of myofibroblastoma show a prominent adipose component resulting in similarity with spindle cell lipoma (see Figure 3). Chromosomal rearrangements of 13q and 16q, characteristic of spindle cell lipoma, have also been identified in some cases of myofibroblastoma. The above supports a proposition of relationship between these two tumors. This tumor differs in the area of presentation and content of fat which is higher in spindle cell lipoma. Spindle cell lipoma also lack keratin like hyalinized bands of collagen with negative response at immunohistochemical analysis for desmin and actin, which are classically described findings of myofibroblastomas.

Histological and immunohistochemical features in this case are those of a myofibroblastoma. Microscopically myofibroblastoma can be divided in different types as: classical, epithelioid, cellular collagenized and infiltrative. The clinical significance is the recognition as a distinctive benign neoplasm. It is important to distinguish them from phyllodes tumors, spindle cell carcinomas and myoepithelial proliferations; which is possible by morphology and immunohistochemistry [6, 7]. Virtually all patients were managed by excision

*Figure 2: Myofibroblastoma - Fascicles of spindle cells separated by bundles of dense collagen.*

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RESUMEN

REFERENCES

Figure 2: Microphotomicrograph - Prominent adipose component

which can eventually harm patients' health.

Microphotomicrographs can mimic a malignant

 proceso del tumor. La extirpación de los ganglios no es necesaria.

¿Qué es el tumor de la mama?

Tumor de la mama

Tumor de la mama

The clinical significance of this study

Figure 2: Microphotomicrograph - Prominent adipose component

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Microphotomicrographs can mimic a malignant