

## Case Report

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# Apocrine adenosis of breast: a very rare case report

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## ABSTRACT

A very rare case of apocrine adenosis of the breast in a 28-year-old woman is being reported. She presented with a lump in the breast since 4 years which was insidious and gradually increasing in size. Examination revealed a 15x15 cm globular freely mobile swelling involving all four quadrants of the left breast. Ultra sound scan showed hypoechoic mass with smooth, partially lobulated margins typical of a fibroadenoma. She underwent excision and biopsy of the lump with a clinical diagnosis of fibroadenoma of left breast. Histopathology showed apocrine adenosis with marked cystic degeneration.

**Keywords:** Apocrine adenosis, Secretory adenosis, Breast

## INTRODUCTION

Atypical apocrine adenosis, a well-described histopathologic entity, can sometimes be misdiagnosed as carcinoma. Apocrine cells can also appear atypical in cytopathology and be mistaken for carcinoma.<sup>1</sup>

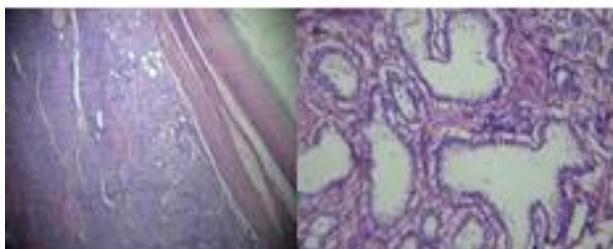
A haphazard proliferation of bland glands with apocrine differentiation with apocrine metaplasia in >50% of adenosis area is called apocrine adenosis. Also called secretory adenosis or adenomyoepithelial adenosis by some. It may be premalignant, based on loss of heterozygosity and allelic imbalance. We report here a very rare case of apocrine adenosis of the breast in a 28-year-old woman.

## CASE REPORT

A 28-year-old woman presented with a lump in the breast since 4 years which was insidious and gradually increasing in size. Examination revealed a 15x15 cm globular freely mobile swelling involving all four quadrants of the left breast. Ultra sound scan showed hypoechoic mass with smooth, partially lobulated margins typical of a fibroadenoma. She underwent excision and biopsy of the lump with a clinical diagnosis of fibroadenoma of left breast (Figure 1). Histopathology showed apocrine adenosis with marked cystic degeneration (Figure 2). S100, SMA immunohistochemistry for myoepithelial markers was done and was positive. Differential diagnosis includes microglandular adenosis and sclerosing adenosis.



**Figure 1: Intraoperative finding showing a globular mass of 15 x 15 cm.**



**Figure 2: Cyst wall lined by degenerative foamy cells. Figure shows compressed tumour tissue composed of varying sizes of glands lined by basal myoepithelial cells with clear cytoplasm and luminal columnar cells with apocrine snouts.**

## DISCUSSION

Apocrine proliferations most often are metaplastic and are a component of fibrocystic change. However, the appearance of apocrine metaplasia within various breast lesions, such as papillomas, ductal adenomas, and sclerosing adenosis, may complicate their diagnosis. Distinguishing benign from malignant apocrine proliferations can be problematic owing to the nuclear characteristics of apocrine cells.<sup>2</sup> Apocrine adenosis shows poorly circumscribed nodules with variable shape and size of glands and is usually associated with adenomyoepithelioma. Apocrine adenoma includes isolated breast lesions consisting of benign, proliferating apocrine epithelial elements with minimal stroma.<sup>3</sup>

In addition to the breast, apocrine adenomas have been known to occur in the perianal region, the eyelid, salivary gland and the axilla. There are suggestions that apocrine adenomas occurring in other parts of the body, such as the axilla, might be a 'middle' step in a succession from apocrine hyperplasia to apocrine carcinoma, but there is no concrete evidence of this for apocrine breast

adenomas. Recurrence is common. Seidman et al. reported that patients with atypical apocrine adenosis were at a 5.5 times increased relative risk for subsequent breast carcinoma development. This study, however, did not adjust for the effect of concurrent atypical ductal hyperplasia. It also included a relatively large number of biopsies from older women, raising the question of whether some of their cases may have represented partially sampled examples of apocrine ductal carcinoma *in situ*.<sup>4</sup> A study by Carter and Rosen found no elevated risk although their cohort included only 47 patients with short term follow up (35 multiples of median). Therefore the association of atypical apocrine adenosis with breast cancer risk is questionable at this time.<sup>5</sup>

Whenever a curious neoplasm such as an apocrine adenoma is discovered during breast cancer screening or following a clinical exam, prudent follow-up measures common to all such neoplasms will likely be undertaken. These would include detailed imaging studies, biopsies, and follow-up checks at a reasonable interval.

## Comment

Apocrine proliferations most often are metaplasia as a component of fibrocystic change. Distinguishing benign from malignant apocrine proliferations can be problematic owing to the nuclear characteristics of apocrine cells.

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## REFERENCES

1. Kaufman D, Sanchez M, Mizrachy B, Jaffer S. Cytologic findings of atypical adenosis of the breast. A case report. Acta Cytol. 2002 Mar-Apr;46(2):369-72.
2. Janet R. Durham, Robert E. Fechner. The histologic spectrum of apocrine lesions of the breast. Am J Clin Pathol. 2000;113(Suppl 1):S3-18.
3. Pasquale-Styles MA, Milikowski C. Three-millimeter apocrine adenoma in a man: a case report and review of the literature. Arch Pathol Lab Med. 2003 Nov;127(11):1498-500.
4. Seidman JD, Ashton M, Lefkowitz M. Atypical apocrine adenosis of the breast: a clinicopathologic study of 37 patients with 8.7-year follow-up. Cancer. 1996;77(12):2529-37.
5. Carter DJ, Rosen PP. Atypical apocrine metaplasia in sclerosing lesions of the breast: a study of 51 patients. Mod Pathol. 1991;4:1-5.

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