



Tubular Adenoma with focal fibroadenoma of breast : A case report'

KEYWORDS

Benign, Breast, Fibroadenoma, Breast Lump, Breast mass Tubular adenoma

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ABSTRACT

Tubular adenomas are benign epithelial tumors of the breast, occur commonly in young women of reproductive age. Very few cases were reported in the literature. As they resemble fibroadenomas both clinically and radiologically preoperative diagnosis is often difficult. Histopathological examination is necessary for correct diagnosis. Tubular adenoma must be differentiated from other benign and malignant lesions, which are closely related such as fibroadenoma and tubular carcinoma respectively. We reported a case of tubular adenoma in young female who presented with gradually enlarging breast lump. Clinical diagnosis was given as fibroadenoma. Surgical excision was done and on histopathological examination, diagnosis of tubular adenoma with focal areas of fibroadenoma was made. They are associated with good prognosis and recurrence after surgery is rare.

Introduction

Tubular adenoma is an uncommon benign neoplasm of female breast^[1,2,3]. Clinically, this is almost indistinguishable from fibroadenoma, one of the common benign breast tumors of young females^[1,2,35,6]. Both these neoplasms are similar, in terms of their age-related incidence, because they both involve predominantly young females of reproductive age group.^[1,2,4,5] Overall incidence of tubular adenoma among benign breast lesions, as reported by various studies, ranges between 0.13% and 1.7%.^[1,2]

Persaud et al. could identify the distinctive histological appearance of this neoplasm as early as 1968^[1,2,3]. Reports on electron microscopical and cytological studies were published almost 15 years later (1983) by Moross et al^[1,2,3,4]. But, till now, only a few research articles have been published on this rare tumor, and most of them are case reports^[1,2,5,6,7,8].

Tubular adenomas of breast are circumscribed, but unencapsulated, lesions.^[1,2,3,6,7,8] Microscopically, the tumors are composed of densely packed, regular, round tubules^[1,2,3,4]. Similar breast lesions are reported in association with pregnancy or the use of oral contraceptives (OCs)^[1,2,3]. The lactating adenomas can be differentiated from tubular adenomas only by historical data (absence of pregnancy, lactation or OC pill use); otherwise, both neoplasms have similar clinical, radiological, and microscopical appearances.^[1,2,3,6,7,8] Lactating adenomas should be considered tubular adenomas under special physiological conditions^[1,2,3]. Biological courses of the two neoplasms are benign with no reported incidence of recurrence or increased chance of malignant conversion.^[7,8,9]

Final diagnosis of tubular adenoma of breast depends upon histopathology.^[1,2,3,4,7,8,9] Clinico-radio-cytological studies can identify the benign nature of the lesion, but a definitive preoperative diagnosis is still an exception, rather

than a rule.^[1,5,6]

Case Report

A 27 year old female patient came with complaints of swelling in the right breast since 10 months, which was gradually increasing in size. There was no history of

pain or fever and it was not associated with menstrual irregularities. On examination lump measuring 2 x 2 cms was noted which was non tender, firm in consistency and freely mobile. Clinical diagnosis of fibroadenoma was made. Routine investigations revealed normal study. Ultrasound of breast revealed fibroadenoma. Patient was subjected for lumpectomy and specimen was sent for histopathological examination.

Multiple sections studied showed closely packed tubular structures lined by the inner cuboidal epithelium and outer attenuated myoepithelial layer surrounded

by the scant intervening stroma. Focal areas of fibroadenoma are also seen. Based on these findings diagnosis of Tubular adenoma with focal fibroadenoma was confirmed.

DISCUSSION

Persaud et al described tubular adenoma as a benign epithelial tumour in 1968^[1,2,3].

Young women of reproductive age, but not associated with oral contraceptive treatment or pregnancy are most commonly affected^[1,2,3,4]. Rarely seen in postmenopausal women^[1,2,3,4,5,6].

Clinically they are asymptomatic. On physical examination mobile painless mass is noted^[1,2,3,4,5,6,7]. Clinical and radiological studies are non specific and are similar to fibroadenoma therefore preoperative diagnosis is difficult^[1,2,3,5,8,9]. Histopathology is the confirmatory diagnosis

In gross, tubular adenoma is well circumscribed with solid homogenous to finely nodular tan yellow cut surface and firm consistency, and tends to be softer than

fibroadenoma^[1- 8] Histologically, it is characterized by the presence of closely packed homogenous acinar and tubular epithelial components with sparse intervening stroma^[1-7,9].

Fibroadenoma, lactating adenomas and malignant lesion like tubular carcinoma should be differentiated from tubular adenoma histopathologically.^[1,2,3,5,6,7,8,9] Tubular carcinomas are differentiated from tubular adenomas by invasion into the stroma.^[1,2,3,4,5]

The true nature of the neoplasm remains controversial^[1,2,5,6,8,9] Some researchers supported a common histogenesis for Tubular adenoma, Lactating adenoma and Fibroadenoma reporting that the lesion is simply an extreme variant of Fibroadenoma.^[1,2,3,5,8,9] An immunohistochemical study of both lesions reported that several cell components of both epithelial and mesenchymal origin were involved in the genesis of tubular adenomas^[1,3,7,8,9].

Combined tubular adenoma and fibroadenoma account for 4% of all benign lesions and around 11% of breast adenomas^[1,2,3,4] Surgical excision is the choice of treatment that is often necessary even for the confirmation of the diagnosis^[1,2,5,6,7,8]

Recurrence after complete excision is rare and hence has good prognosis.

In 90% of the cases these tumors are found in patients younger than 40 years old whereas the elderly women are very rarely affected^[4, 8]. Nagata et al.^[9] reported that out of 32 cases of tubular breast adenoma reported in the Japanese literature only 2 occurred in women older than 65 years

Conclusion

Based on the study of one of the largest series of tubular adenoma of breast, as reported in English literature, we conclude that this rare benign neoplasm can be identified with certainty only after Histopathological examination. Clinico-radio-cytological evaluation can help identify the benign nature of a breast lesion, but early preoperative definitive diagnosis is still difficult.

Legends to figures

Figure 1} Microphotograph showing closely packed tubular structures lined by the inner cuboidal epithelium and outer attenuated myoepithelial layer surrounded by the scant intervening stroma (H & E stain , 10 X).

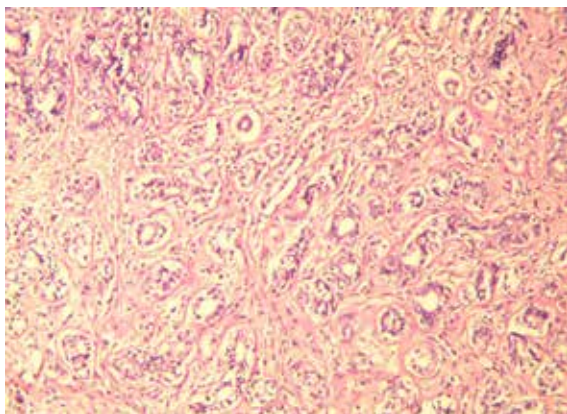


Figure.2 Microphotograph closely packed tubular structures lined by the inner cuboidal epithelium and outer attenuated myoepithelial layer surrounded by the scant intervening stroma. (H & E stain ,40 X).

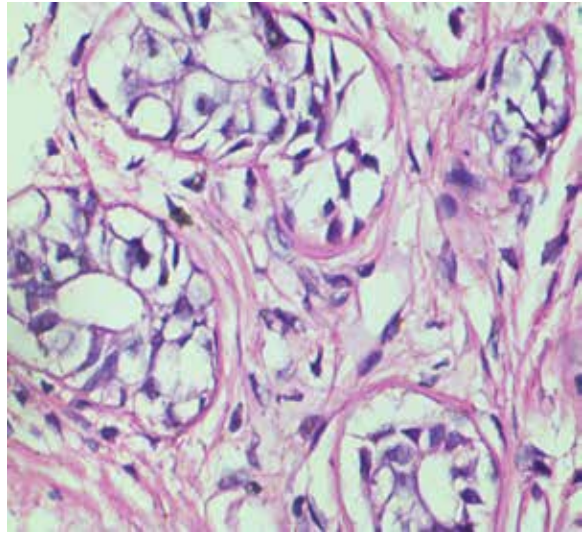
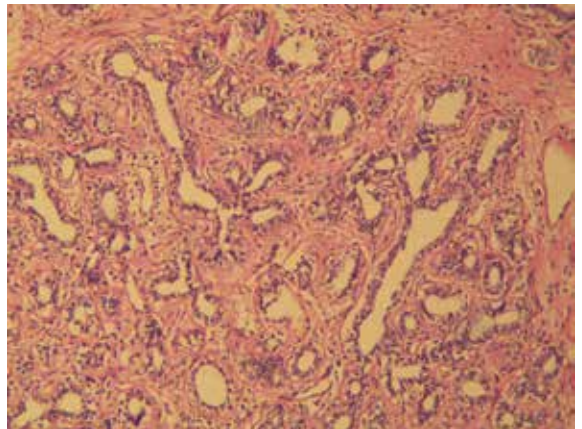


Figure.3 Focal Areas of Fibroadenoma (H & E 10 X)



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