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International Journal of Surgery Case Reports

journal homepage: www.casereports.comMultiple fibroadenomas in bilateral breasts of a 46-year-old Indian woman – A case report[☆]Sangram Keshari Panda^{*}, Byomokesh Patro, Jagadananda Mishra, Rajesh Kumar Dora, B. Swagat Kumar Subudhi

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ARTICLE INFO

Article history:

Received 4 December 2013

Accepted 16 December 2013

Available online 2 March 2014

ABSTRACT

INTRODUCTION: Fibroadenomas are among the most common tumours of the female breast, occurring most frequently in women of child-bearing age, especially those under 30 years.**PRESENTATION OF CASE:** We report a case with a total of 27 fibroadenomas presenting bilaterally of a 46-year-old woman. The histopathologic and immunophenotypic features of the fibroadenomata are described.**DISCUSSION:** Most fibroadenomas are present as single mass, however the presence of multiple fibroadenomata can be seen in 15–20% of the patients. It has been reported that the average number of masses in cases of multiple fibroadenomas is 3–4 in a single breast but occurrence of more than five fibroadenomas in an individual patient is much less common.**CONCLUSION:** There are few reports of multiple fibroadenomas. We report this case hoping to expand the literature and to provide insight to aetiology of multiple fibroadenoma formation and advice on management.

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1. Introduction

Fibroadenomas are among the most common tumours of the female breast, occurring most frequently in women of child-bearing age, especially those under 30 years. Most present as single mass, however the presence of multiple fibroadenomas can be seen in 15–20% of patients.¹ It has been reported that the average number of masses in cases of multiple fibroadenomas is typically 3–4 in a single breast but occurrence of more than five fibroadenomas in an individual patient is much less common.²

2. Case history

A 46-year old woman presented with multiple lumps in both breasts which she first noticed a year earlier. She had not been exposed to any chemicals or harmful materials and had never taken any oral contraceptives or other medications. Her elder sister

underwent surgery for a single breast fibroadenoma. The family history was otherwise unremarkable.

Physical examination revealed two enlarged breasts with symmetrical nipples and no retraction or haemorrhage. The overlying skin was normal, not associated with any lymphadenopathy. Within the breasts, there were many palpable, non-tender masses throughout all quadrants, ranging from less than 1–5 cm in size. The masses were well circumscribed with regular margins, smooth surfaces, firm in consistency, and mobile. There were no other lumps.

Ultrasonography showed solid masses that had a distinct, clear envelope like appearance and relatively uniform echoes. Fine needle aspiration cytology showed monolayered sheets of benign duct epithelial cells with base nuclei. Mammography of both breasts showed multiple well defined round to oval lobulated masses in both breasts (BIRADS-III). (Fig. 1 and Fig. 2) Routine laboratory testing including sexual hormone level showed no abnormality. The patient underwent excisions of all palpable masses from both breasts.

The masses were round to oval in shape, encapsulated. There were 27 masses identified from both breasts (17 from right breast and 10 from left breast), sizes ranging from 0.5 cm × 0.5 cm × 1 cm to 3 cm × 4 cm × 4 cm. (Fig. 3). The cut sections of the masses showed greyish-white colour with rubbery texture. On microscopic examination, the masses were composed of biphasic growth pattern with epithelial & stromal proliferation. The loose fibrous stroma compressed surrounding

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Fig. 1. Mammography of right breast showing multiple well-defined round to oval lobulated masses.

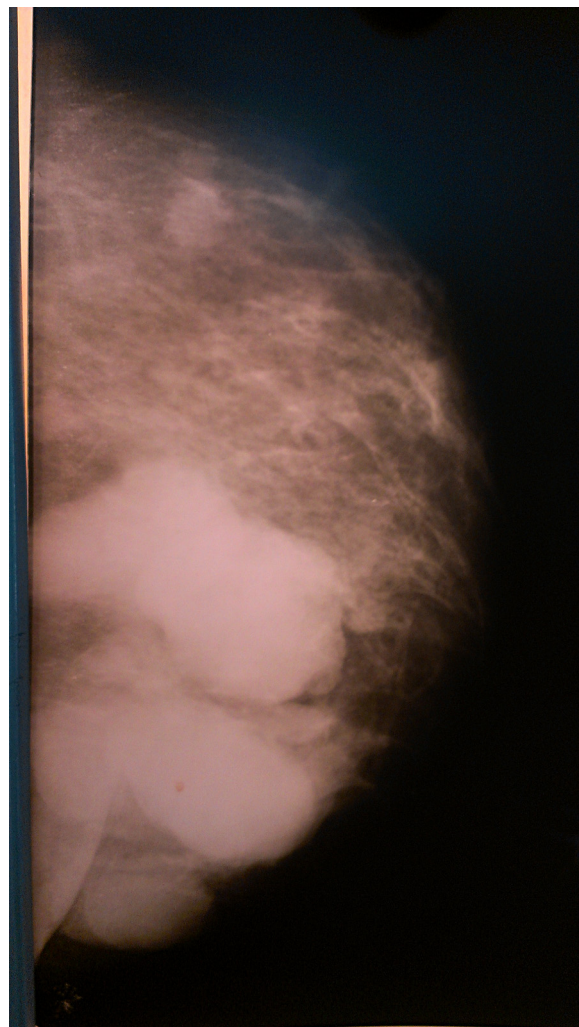


Fig. 2. Mammography of left breast showing multiple well-defined round to oval lobulated masses.

benign ducts with an intracanalicular growth pattern. The duct showed focal hyperplastic changes. No epithelial and stromal cell atypia or malignancy was identified. Histomorphological features of the masses were diagnostic of fibroadenoma. (Fig. 4)

3. Discussion

Most fibroadenomas present as a single mass, although the presence of multiple fibroadenomas can be seen in 15–20% of the patients.¹ Unlike women with a single fibroadenoma, most of the patients with multiple fibroadenomas have a strong family history of these tumours.³

The aetiology of multiple breast fibroadenomas has not yet been clearly established. A possible connection between multiple fibroadenomas and oral contraceptives was proposed but has not been well investigated yet.⁴ Other possibilities include imbalance of in vivo oestrogen levels, hypersensitivity of local breast tissue to oestrogen, dietary factors, or inherited predisposition.⁵ The increased sensitivity to oestrogen may subsequently

lead to mammary gland hyperplasia and even the development of carcinoma. A study of a large cohort of women with fibroadenoma revealed that the overall prevalence of atypical epithelial hyperplasia within fibroadenomas was 0.81% and only around 7% of women with atypia developed invasive carcinoma on follow-up.⁶ Therefore, patients with fibroadenomas may have a slightly increased risk of developing breast cancer. The pathogenesis of formation of the numerous breast fibroadenomas in this patient is unknown.

With increasing age, the risk of carcinomatous degeneration in fibroadenomas rises to 17%.⁷ This necessitates excision of all such tumours. The surgical treatment of choice of fibroadenoma is breast conserving, however multiple fibroadenomas pose a particular challenge. In 1971, Liacyr Ribeiro described his new technique for reduction mammoplasty. Four years later, the first 20 cases were published. This technique was introduced by Rezai in oncoplastic surgery. With free hand design, preoperative marking is performed and the inferior pedicle modulated. Multiple fibroadenomas of the breast are safely removable with the Ribeiro technique modified by Rezai.⁸

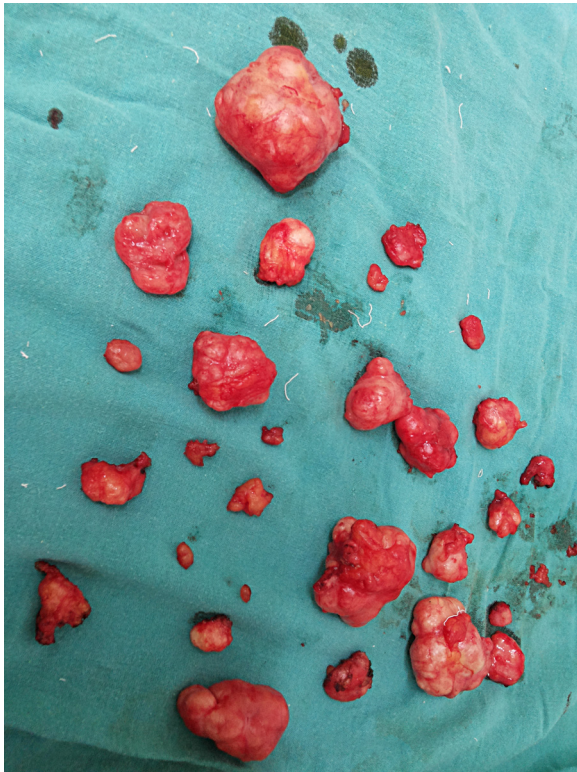


Fig. 3. Masses excised from both breasts with a total number of 27.

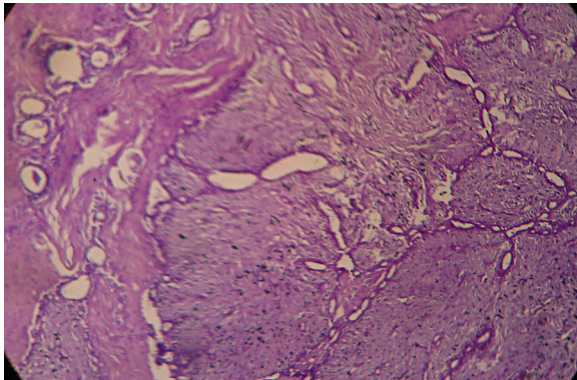


Fig. 4. Biphasic growth proliferation composed of benign breast ducts and stroma in histopathologic view.

4. Conclusion

There is scant literature regarding multiple fibroadenomas in bilateral breasts. We report this case hoping to expand the literature and to provide insight to aetiology of multiple fibroadenoma formation and advice on management.

Conflict of interest statement

None declared.

Funding

None declared.

Patient consent

Obtained.

Author contributions

Dr Sangram Keshari: Study design, Writing; Dr Jaradanda Mishra: Data analysis, writing; Dr B. Swagat K. Subdhi and Dr Byomkesh Patro: Data collection, Writing.

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