

Paediatric Breast Fibroadenoma

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ABSTRACT

A breast fibroadenoma is a painless, unilateral, benign tumour that presents as a solid mass. This case report discusses the clinical presentation and management of breast fibroadenoma in a 6 year old girl. We highlight the role of using a multidisciplinary team approach to optimise care.

Keywords: Breast Fibroadenoma, Benign Tumour

Clinical History

A 6-year-old girl with a painful right breast lump which had previously grown slowly over a year but there had been more rapid growth over the last 2 months. On clinical examination the lump was mobile, firm, and tender. She had achieved pubarche, but not menarche. The mass was clinically indeterminate and the patient was referred for ultrasound imaging.

Imaging Findings

The patient underwent ultrasound (US) examination which revealed a well-circumscribed hypoechoic solid mass measuring 6 cm (Fig. 1). The mass demonstrated benign appearances of being wider than tall, no fluid clefts, no spiculated margins or posterior acoustic shadowing. Based on these findings the differential diagnoses were fibroadenoma or phyllodes tumour.

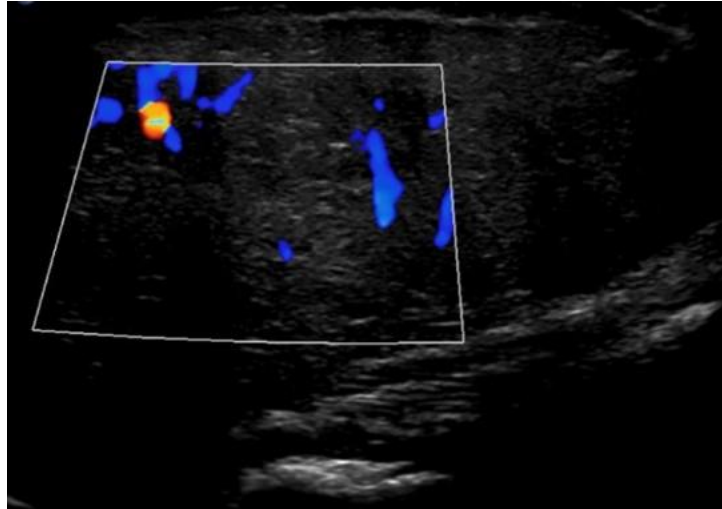


Figure 1

Discussion

Fibroadenomas are the most common benign breast lesions which are derived from the terminal duct lobular unit (Eleftheriades *et al.*, 2023). These lesions are usually asymptomatic and on clinical examination felt as mobile, well circumscribed masses. On US, fibroadenomas are mostly homogeneous and hypoechoic and can demonstrate posterior acoustic shadowing (Namazi *et al.*, 2017).

As described above, the mass in this patient demonstrated benign features: wider than tall, central vascularity, no fluid clefts, no spiculated margins or posterior acoustic shadowing. Following imaging the differentials were narrowed to a giant fibroadenoma (>5 cm) and phyllodes tumour (Namazi *et al.*, 2017). There were no fluid clefts characteristic of a phyllodes tumour and as such the most likely diagnosis is fibroadenoma. Biopsy was withheld, as in paediatric patients, this is not recommended unless the mass has atypical features (Sanders *et al.*, 2018).

The case was discussed in a multidisciplinary meeting with the breast surgical team. The plan was to follow up twice at 6 monthly intervals alternating between the breast surgeon and the paediatrician. The decision was made to withhold biopsy as the ultrasound findings were benign and to avoid deformity of the developing breast. However at clinical follow up, the mass was progressively increasing in size and a biopsy confirmed that it was a fibroadenoma, with subsequent surgical removal.

Conclusion

The key learning points were that ultrasound helped characterise a clinically indeterminate mass. Paediatric breast disease is overwhelmingly benign so characterisation on ultrasound and follow-up to monitor rapid or significant changes after a baseline scan is helpful.

References

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