

A Break in Tradition

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Jeffrey Lim, Michael Shere
Breast Care Centre
Frenchay Hospital
Frenchay Park Road
Bristol, BS16 1LE
Corresponding Author: Jeffrey Lim

Case Report

A 73 year old patient was seen in the one-stop breast clinic with a right upper outer quadrant breast lump.

The patient had previously been diagnosed with a left breast grade three invasive ductal carcinoma 5 years ago which had been successfully treated with complete resection via wide local excision (axillary node sampling showed seven clear nodes). She was last seen earlier this year and discharged from clinic after the fifth year of follow up.

For this current appointment, the patient was sent in by her GP as a suspected breast cancer due to the finding of a new knotty, irregular, lump in her right breast. Her history was significant in that the patient sustained a fall on her right side four weeks prior to seeing her GP which caused heavy bruising to her right arm and upper chest. The patient denied any current shortness of breath but did admit to dyspnoea for two to three weeks after the fall. The lump in her right breast was only noticed incidentally when the bruising cleared. Prior to the fall, the patient was otherwise systemically well and had not noticed any lumps in either breast.

On examination, a 7 x 5 cm rectangular lump in the right upper outer quadrant of the right breast was visible which was hard and tender to palpation. The rest of the right breast, the left breast and both axillae were otherwise normal except for the scar of her previous wide local excision on her left breast.

Ultrasound examination of the lump revealed the striking finding of a well-defined hypo-echoic lesion corresponding to the shape of the lump on her right breast (Figure 1).

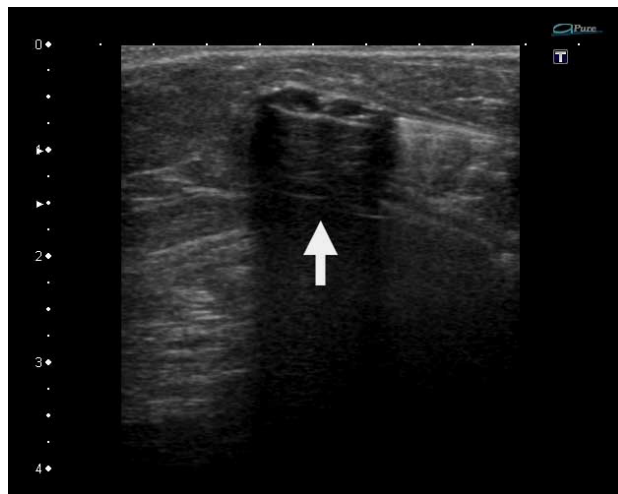


Figure 1 - initial sagittal view over suspicious breast lump which reveals a well-defined hypo-echoic lesion (white arrow)

On further views, the lesion was shown to be a sharp discontinuity in the 3rd rib in the mid-clavicular line which did not look like a cancer or benign breast disease (Figure 2).

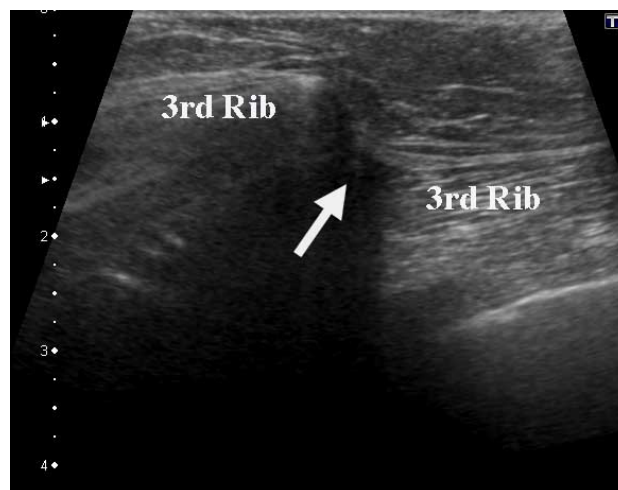


Figure 2 - transverse view revealing the sharp discontinuity of the anterior 3rd rib fracture (arrowed)

The lesion was deep to the skin and muscle and on a transverse view, was continuous with lateral rib and also in line with the medial portion of the rib (Figure 3).

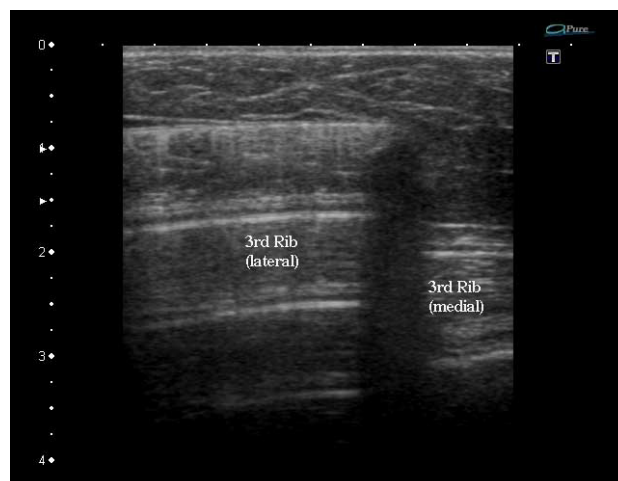


Figure 3 - close up view oriented to long axis of the rib fracture

This was postulated to be callus formation from a rib fracture which the patient sustained from her fall four weeks prior to her GP visit.

This finding was in agreement with senior review by the unit's Breast Clinician and as no other investigations were deemed necessary for the lump; the patient was reassured and discharged back to her GP.

The Frenchay Breast Ultrasound course is the only course in the UK run by breast surgeons to train other surgeons in ultrasound to aid diagnosis and investigation in outpatient clinics.(1)

The surgical specialty registrar who first examined the patient had recently attended this course as a new trainee in the breast unit and had seen the above patient in his first clinic after the course.

An ultrasound diagnosis of a rib fracture which had been masquerading as a possible breast cancer has not yet been reported in literature. Ultrasound is not the preferred modality to diagnose rib fractures but in this case, the training the registrar received from the course was able to swiftly identify the cause of the lump without needing to refer to other departments for further imaging such as ultrasound or chest radiography. We believe that the ability to use ultrasound scanning gives the surgeon a useful adjunct to his diagnostic skills which can increase the efficiency of one-stop clinics.

References

1. North Bristol NHS Trust. (2011). Breast Ultrasound Course for Surgeons. Available: http://www.nbt.nhs.uk/our_services/a-_z_of_services/b/breast_care/breast_ultrasound_course.aspx. Last accessed 01/03/11.