Background: Mammography is the gold standard for investigation of breast abnormalities but is limited by overlapping tissue obscuring real lesions or mimicking malignancy [1,2]. The traditional 90° lateral projection and Digital Breast Tomosynthesis (DBT) provide similar information when investigating possible lesions identified on standard mammography. This study aims to investigate the frequency of use and usefulness of the 90° lateral projection in breast screening assessment clinics where DBT is available.
Methods: A self-administered questionnaire was designed and piloted. Clinicians within a screening organisation were invited to complete one questionnaire per case in assessment clinics during a 6-week period.
Results: Twelve clinicians from two of the three invited regions participated. 231 questionnaires were included in the dataset. Lateral projection and DBT were used frequently, in 81.8% (n=189) and 83.5% (n=193) of cases respectively. They were used to complement each other as evidenced by varied indications. Lateral projections and DBT were reported 'very useful' or 'useful' in most cases, 65% and 79.3% respectively.
Conclusions: The lateral projection remains frequently used when DBT is available. Radiation dose of performing both is justified by varied indications for use and both were reported useful in most cases. Increased use of the lateral DBT projection could combine the benefits of an orthogonal projection to indicate lesion location and those of DBT in characterising lesions.
[1]. Roth, R. et al. Digital Breast Tomosynthesis: Lessons Learned from Early Clinical Implementation. Radiographics [Internet]. 2014. [cited 11 February 2019]; 34(4), p.E89-E102. Available from: https://pubs.rsna.org/doi/full/10.1148/rg.344130087
[2]. Giess, C., Frost, E. and Birdwell, R. Interpreting One-View Mammographic Findings: Minimizing Callbacks While Maximizing Cancer Detection. RadioGraphics [Internet]. 2014. [cited 11 February 2019]; 34(4),928-40. Available from:https://pubs.rsna.org/doi/10.1148/rg.344130066

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Imaging theatre specimens: The impact of imaging methods on surgical re-excision rates

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Purpose: In 2018 digital breast tomosynthesis (DBT) equipment was installed in the department. Published literature claimed DBT a superior imaging technique for perioperative specimen imaging [1]. A combination of DBT and full field digital mammography (FFDM) was introduced and audited.
Method: All surgical specimens in a 9 month period were imaged using FFDM/DBT or in theatre using a specimen x-ray cabinet (SXC). Cases were separated into 3 month groups, before, during and after equipment changeover. All FFDM/DBT images were reviewed by the radiology team and verbally reported to theatre. Data regarding imaging method and specimen margin status was collected. Results were discussed within the multidisciplinary team and a further 3 month period of data collection was agreed upon.
Results: During the initial 9-month audit 236 specimens were imaged. 40 needed surgical re-excision. 183 specimens were imaged using FFDM/DBT and 53 using SXC. The SXC images showed a higher percentage of re-excisions (26.42% versus 14.2% in FFDM/DBT). Post introduction of DBT (88 specimens) the re-excision rate for FFDM/DBT fell from 15.9% to 12.7%, suggesting DBT may be beneficial, Post MDT discussion showed a reduction of specimens imaged using SXC, (21.7% to 13.6%), due to imaging method selection by surgeons.
Conclusion: There has been a reduction in re-excision rates since the introduction of DBT. Due to significant differences in re-excision rates between FFDM/DBT versus SXC, auditing has prompted a change of surgical practice and imaging protocols. However, non-calcifying DCIS could be a confounding variable to this
[1] Amer, H.A., Schmitzberger, F., Ingold-Heppner, B., Kussmaul, J., El Tohamy, M.F., Tantawy, H.I., Hamm, B., Makowski, M. and Fallenberg, E.M. 'Digital breast tomosynthesis versus full-field digital mammography—Which modality provides more accurate prediction of margin status in specimen radiography?', European Journal of Radiology, (2017) Volume(93), pp.258–264. Available at: DOI:10.1016/J.EJRAD.2017.05.041 [Accessed: 31 January 2020].

P40

A service evaluation of the accuracy of axillary ultrasound and MRI in determining lymph node metastasis in patients with breast cancer

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Purpose: Axillary lymph node metastasis is seen as a key prognostic factor for breast cancer patients. [1] Pre-operative diagnosis of axillary lymph node metastasis can ensure patients receive the appropriate axillary surgery and can prevent the need for further surgery. [2] This study assessed the accuracy of ultrasound, MRI and ultrasound guided core biopsy in diagnosing axillary lymph node metastasis pre-operatively. The results will aim to refine our current clinical practice.
Methods: Ultrasound and MRI data was retrospectively analysed from breast cancer cases diagnosed between January 2017 and December 2019. The results were correlated to the final histological outcomes from the surgery.
Results: Two hundred and fifty eight cases were included in the study, 107 (41.5%) had evidence of lymph node metastasis on final histology. Ultrasound was compared to MRI to establish which imaging modality was most accurate at detecting lymph node metastasis. Ultrasound was demonstrated to have a sensitivity of 67%, specificity of 87%, PPV 79%, NPV 79% and an Accuracy of 79%. MRI was demonstrated to have a sensitivity of 76%, specificity of 84%, PPV 77%, NPV 83% and an Accuracy of 80.6%. 103 of the cases had ultrasound guided core biopsy of an abnormal node to establish lymph node metastasis. The overall sensitivity of lymph node core biopsies was 86%, specificity was 100%, PPV 100%, NPV 68% and accuracy 89.3%.
Conclusion: There was no statistical difference between the performance of ultrasound to MRI in the detection of lymph node metastasis. No change in clinical practice.
[1] Valente SA, Levine GM, Silverstein MJ, Rayhanabad JA, Weng-Grumley JG, Ji L, Holmes DR, Sposto R, Sener SF. Accuracy of predicting axillary lymph node positivity by physical examination, mammography, ultrasonography, and magnetic resonance imaging. Annals of surgical oncology. 2012 Jun 1;19(6):1825-30.
[2] NHS Breast Screening Programme, Clinical guidance for breast cancer screening assessment. NHSBSP publication number 49, Fourth edition November 2016

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Audit of breast skin abnormalities referred to the one stop clinic: Is imaging contributory?

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Purpose: Patients presenting to the breast clinic with clinically assessed skin lesions are frequently referred for additional diagnostic US scan. 8 months of radiology activity were audited to assess whether US contributed to the management of these lesions.
Methods: The reports of US performed in the rapid diagnostic clinic between 1/01/2020 and 31/08/2020 were reviewed retrospectively. A case was included in the audit if the clinical details or the imaging details suggested that the presenting symptom was due to a skin