RAPID FIRE POSTER PRESENTATIONS

RFP.01 Imaging characteristics of breast lymphoma: a retrospective study

Laila Alhassan, Mutsa Kangoni, Emmanuel Sobamowo, Amina Tighilt, Thamara Uyangoda, Dimitrios Kitsos, Colin Vos, Arsh Gupta, Sudeendra Doddi, Anna Metafa
King's College Hospital NHS Foundation Trust, London, United Kingdom

Background: Breast lymphoma is a rare malignancy. Understanding the imaging characteristics and correlating them with clinical findings can help in diagnosis.
Method: A retrospective review of 18 breast lymphoma cases from 2010 to 2023 was conducted using MDT, PACS, and electronic records. Imaging studies, including mammography, ultrasound (US), CT, and PET-CT, were reviewed by two breast radiologists.
Results: All patients presented with a breast lump, aged between 27 to 93 years. 17 cases (94.4%) were Non-Hodgkin Lymphoma (NHL), and one was Breast Implant-Associated Anaplastic Large Cell Lymphoma (BIA-ALCL).

- Ultrasound Findings: All NHL cases presented as masses with lobulated or indistinct margins, mixed echogenicity (53%), wider than tall (82.4%), and increased vascularity (in 7/10 cases where it was recorded). Diagnosis was confirmed with an US guided biopsy.
- Mammography Findings: 15 cases had a mammogram. 73.3% presented as a mass with indistinct margins, 13.3% an asymmetric density, and 13.3% were occult.
- CT and PET-CT Findings: 11 patients had a CT which showed a non-specific breast density. 7 patients had a PET-CT which revealed increased uptake in all but one case, aiding in systemic disease evaluation.
- MRI Findings: One BIA-ALCL case showed an intracapsular fluid collection without enhancement.

Conclusion: Breast lymphoma typically presents as an indistinct, mixed echogenicity mass on ultrasound and an irregular mass on mammography. PET-CT helps in assessing systemic involvement. Peri-implant fluid collections in longstanding implants should raise suspicion for BIA-ALCL.

RFP.02 Review of local clinical practice following introduction of a new protocol increasing the non-biopsy age threshold of patients with ultrasound confirmed fibroadenoma

Soraya Conroy, Steffan Evans, Katherine Klimczak, Michelle Mullan
North Bristol NHS Trust, Bristol, United Kingdom

Introduction: Following updated guidance from the Royal College of Radiology in 2019 the Breast Care Centre at North Bristol NHS Trust introduced a new local protocol for women with U2 fibroadenoma on ultrasound aged 25-29. This increased the non-biopsy age threshold from 25 to 29 years old for women with breast lumps which fulfil strict criteria indicating a radiological fibroadenoma. We aimed to audit adherence to this updated protocol and review if unnecessary biopsies were being undertaken.
Methods: Data was gathered regarding number of ultrasounds performed, number of core biopsies performed, and number of biopsy undertaken in U2 graded ultrasound scans for women under the age of 30 between January – December 2023. This data collection window was following the introduction of the new protocol at the end of 2022.
Results: A total of 1576 women under the age of 30 underwent a breast USS in 2023. 52 core biopsies were taken in women aged 25-29 with 22 confirmed fibroadenomas. When reviewing the initial ultrasound reports, 8 of these patients fulfilled the non-biopsy criteria yet went onto have a biopsy. This cost the Trust approximately £1500 in pathology processing/reporting.
Conclusions: Despite updated guidance, biopsies are still undertaken unnecessarily in this cohort of patients. The implications of over biopsying are numerous including cost, pathology & radiology time, MDM timings and increased patient anxiety. Following this audit, we plan to present locally and provide a refresher on the updated guidance.

RFP.03 Get it Right First Time (GIRFT) - Upfront Large volume extensive sampling for Complex Sclerosing Lesions.

Dr Osman Janjua, Gillian Reece, Archana Seth
West of Scotland Breast Screening Services, NHS Greater Glasgow and Clyde, Glasgow, United Kingdom

Purpose: Parenchymal distortion (PD) diagnosed on tomosynthesis (DBT), with no correlating ultrasound finding is a subgroup with low malignancy outcome and likely due to Complex Sclerosing Lesion (CSL). At our unit, we extended the use of Large Volume Extensive Sampling (LVES) as a first-line biopsy technique in this subgroup, with the aim to reduce the need for additional biopsy.
Methods: A retrospective observational study.
Obtained Caldicott Approval.
Time-frame: January 2020 - December 23 (4 years).
Multidisciplinary team (MDT) outcomes, Scottish Breast Screening system (SBSS) and Clinical Portal were used to audit LVES cases.

RAPID FIRE POSTER PRESENTATIONS

Results:
51 first-line LVES were identified.
3/51 cases excluded as second-site biopsy for micro-calcifications (B3 biopsy for M3 calcs elsewhere in the breast).
48/51(94.1%) were identified as PD for first-line LVES:
•PD cases where another biopsy was obviated 35(73%).
29/48(60.4%) of PD cases had pathology confirming CSL:
•4/29(14%) were B3 with atypia.
•3/29(10%) were B4. 2/3 were upgraded to malignant.
•PD cases with B5 malignant outcome - 13/48(28%). 3/13 were graded as suspicious (M5,U5) and should have had first-line conventional biopsy. The remaining 10/13 presented as PD and standard 14G biopsy or 10g large volume biopsy could have been diagnostic. Reported complications impacting surgical management - 3/13(23.1%) had haematomas delaying surgery.
•3/48(6.3%) were graded B2.
Conclusion: LVES can be safely utilised as a first-line diagnostic sampling technique when the working diagnosis is CSL, reducing the need for two procedures. To optimise patient management and minimise surgical delay, first-line LVES should not be offered for malignant cases (M5U5).

1.Public Health England. NHSBSP Publication No 49: clinical guidelines for healthcare professionals screening women for breast cancer. 2016 Nov.
2. S E Pinder, A Shaaban, R Deb, A Desai, A Gandhi, A H S Lee, S Pain, L Wilkinson, N Sharma. NHS Breast Screening multidisciplinary working group guidelines for the diagnosis and management of breast lesions of uncertain malignant potential on core biopsy (B3 lesions). Clinical Radiology [Internet]. 2018 Aug;73(8):682–92. Available from: http://dx.doi.org/10.1016/j.crad.2018.04.004.
3.N Sharma, E Cornford, S Cheung, H Price, O Kearins. The impact of vacuum-assisted excision in the management of indeterminate B3 lesions in the NHS Breast Screening Programme in England. clinical radiology. 2021 Jun;76(6):470.e23-470.e29.
4.Taghreed I Alshafeiy, Jonathon V Nguyen, Carrie M Rochman, Brandi T Nicholson, James T Patrie, Jennifer A Harvey. Outcome of Architectural Distortion Detected Only at Breast Tomosynthesis versus 2D Mammography. radiology. 288(1):38–46.

RFP.04 A retrospective audit of breast biopsy marker migration following 12, 10 and 7 gauge stereotactic guided biopsy

Samantha Davis[1], Lara Bech Layton[2], Roshni Chhabria[1]
[1]Countess of Chester Hospital NHS Foundation Trust, Chester, United Kingdom, [2]University of Liverpool, Liverpool, United Kingdom

Objective: Accurately placed markers are essential for subsequent imaging and surgical planning. Marker migration should be minimal according to Royal College Radiologists guidelines [1]. By local agreement 10mm or less is considered acceptable and relevant literature reports variable rates of migrated markers from 10-35.6% [2, 3, 4, 5]. The objective of this audit was to evaluate the rate of marker migration in screening and symptomatic patients, compare this to published data and identify contributing factors.
Methods: Consecutive patients from January 2023 to December 2023 were audited retrospectively. Post and pre-biopsy mammograms were compared with migration distances categorised into groups: 0-10mm, 11-20mm, 21-30mm and >30mm. Potential factors contributing to migration were evaluated: needle gauge, number of samples, biopsy approach, site of abnormality, breast thickness, breast density, marker shape and biopsy complications.
Results: Of 168 markers placed 64.9% were accurate and migration rates totalled 35.1% (17.8% at 11-20mm, 9% at 21-30mm, and 8.3% beyond 30mm). 10G needle was the most accurate (66.07%) compared to 12G (64%) and 7G (61%). Two factors related to accurate placement were no complications and increased breast density (P<0.05). Lateral patient positioning, padlock marker shape and 0-6 samples were factors which showed a minimal increase in accuracy. Among migrated cases 17/59 had B3, B4 or B5 results. Three cases experienced significant management impacts, including one unsuccessful image-guided localisation resulting in missed cancer at surgery.
Conclusions: Primary risk factors for migration were reduced breast density and procedural complications. Understanding these factors can help biopsy teams implement mitigation strategies.

1. Royal college radiologists - Rubin C. Guidance on screening and symptomatic breast imaging, 4. izd. 2019. Do stupno na: https://associationofbreastsurgery. org. uk/media/251901/guidance-on-screening-andsymptomatic-breast-imaging-4th-edition. pdf. Pristupljeno.;10.
2. Jain A, Khalid M, Qureshi MM, Georgian-Smith D, Kaplan JA, Buch K, Grinstaff MW, Hirsch AE, Hines NL, Anderson SW, Gallagher KM. Stereotactic core needle breast biopsy marker migration: an analysis of factors contributing to immediate marker migration. European radiology. 2017 Nov; 27:4797-803.
3. Weaver O, Cohen EO, Perry RE, Tso HH, Phalak K, Srinivasan A, Bassett R, Leung JW. Does lateral arm technique decrease the rate of clip migration in stereotactic and tomosynthesis-guided biopsies? Insights into Imaging. 2021 Dec; 12:1-8.
4. To VY, Wong KM, Mak WS, Kwok KM, Wong CW. Stereotactic-guided Vacuum-assisted Breast Biopsy in the Asian Population: What Factors Affect Marker Migration? Hong Kong Journal of Radiology. 2016 Dec 1;19(4).
5. Stahl B, Li Y, Hermecz B, Woodard S. Out with the old and in with the new? Factors involved in migration of older and newer generation stereotactic breast biopsy markers. Journal of Breast Imaging. 2021 Jul 1;3(4):465-72.

RAPID FIRE POSTER PRESENTATIONS

RFP.05 5-year follow-up of patients with B3 breast lesions following Vacuum Assisted Excision (VAE)

Rachel Sun[1], Amanjot Karuppiah[1], Elisabetta Giannotti[2], Julia Yemm[3]
[1]Nottingham University Hospitals, Nottingham, United Kingdom, [2]Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom, [3]Sherwood Forest Hospitals Trust, Nottingham, United Kingdom

Objectives: Current UK breast screening guidelines recommend VAE for managing B3 lesions and 5-year mammography follow-up for those lesions with atypia. Our aim was to retrospectively review 5-year outcomes of patients with B3 lesions who underwent VAE with a benign histology.
Methods: Patients with benign final histology after VAE of B3 lesions performed in two centres between 01/2017 and 12/2019 were included. Data was collected on initial biopsy, final histology, any follow-up imaging.
Results: 92 patients met the inclusion criteria, 40 had no atypia, and 52 had atypia in either the initial biopsy or final histology qualifying for 5-year mammographic follow-up. Of the 52 with atypia 41 completed the follow-up, with non-completion reasons including death (3), no documented reason (2), patient choice (1), and awaiting final mammogram (5). 6.5% (6/92) of patients developed malignancy within 5 years. 9.6% (5/52) of patients from the atypia group developed malignancy at follow-up: two at the VAE site (invasive), 2 in the same breast but away from VAE site, and 1 in the contralateral breast.
In the no atypia group one malignancy was diagnosed symptomatically in the contralateral breast and one benign lesion (multiple papillomata) diagnosed at the VAE site.
Conclusions: This study shows that VAE is effective for management of B3 lesions. A small number develop malignancy within 5 years; however, malignancy at the VAE site is rare. Ongoing surveillance is essential for these patients, and further research is needed to optimize follow-up strategies.

1. NHSBSP Publication No 49; PHE Available from:Breast screening: clinical guidelines for screening assessment - GOV.UK

RFP.06 Structured report in breast MRI: Introduction of free text template to improve report accuracy

Samia Nesar, Elisabetta Giannotti
Cambridge University Hospitals NHS Trust, Cambridge, United Kingdom

Background: There are advantages and challenges of utilising standardised template reporting.[1] Templates can improve the quality of service provided to patients and physicians.[2]
Aims/Objectives: This audit aims to evaluate local breast MRI reports against standards set by the American College of Radiology (ACR), before and after implementing the standardised free text reporting template.
Methods: 50 consecutive breast MRI reports were retrospectively analysed from 02/2022 (before template implementation), 50 from 02/2024 (after implementation), and 50 reports from 09/2024 after review and template development.
Every report was checked against ACR criteria[3], to see if it contained:
- Indication
- MRI technique
- Breast composition
- Clear findings description
- Comparison to previous examination(s)
- Assessment
- Management

Results: With the introduction of the first standard template, we noted a reduction of report accuracy with reporting of the MRI indications falling from 100% to 72% and comparison to prior imaging also falling from 82 to 78%. MRI technique did not improve; remained at 0%. (Table 1, Fig 2)
The template was revised and updated accordingly to include all ACR standards (Fig 3). Re-audit in 09/2024; demonstrated 100% compliance with all standards.
Template reporting did ensure that assessment and management was clearly documented in the MRI report rather than elsewhere in the patient's notes.
Conclusions: Reporting templates are useful tools, but it is important to ensure that they are complete and accurate as they can potentially reduce report accuracy. Auditing after reporting template introduction is recommended to ensure standards are being met and maintained.

RAPID FIRE POSTER PRESENTATIONS

Table 1.

Criteria	Feb-22 (% compliance)	Feb-24 (% compliance)	Sep-24 (% compliance)
Indication for examination	100	72	100
MRI Technique	0	0	100
Succinct description of overall breast composition	100	100	100
Clear description of any important findings	100	100	100
Comparison to previous examination(s)	82	78	100
Assessment	62	100	100
Management	44	100	100
BPE	88		100
Nodes	94		100
Series/image for 2nd look US	0		100

1. Pesapane F, Tantrige P, De Marco P, Carriero S, Zugni F, Nicosia L, Bozzini AC, Rotili A, Latronico A, Abbate F, Origgi D, Santicchia S, Petralia G, Carrafiello G, Cassano E. Advancements in Standardizing Radiological Reports: A Comprehensive Review. Medicina (Kaunas). 2023 Sep 17;59(9):1679. doi: 10.3390/medicina59091679. PMID: 37763797; PMCID: PMC10535385.
2. European Society of Radiology (ESR). ESR paper on structured reporting in radiology-update 2023. Insights Imaging. 2023 Nov 23;14(1):199. doi: 10.1186/s13244-023-01560-0. PMID: 37995019; PMCID: PMC10667169.
3. American College of Radiology, ACR BI-RADS@ ALTLAS- Breast MRI. Available at: https://www.acr.org/-/media/ACR/Files/RADS/BI-RADS/MRI-Reporting.pdf

RFP.07 Maximising early breast cancer detection: the importance of mammographers' proficiency in performing the eklund technique

Kate Greene, Noelle Clerkin
Belfast Health and Social Care Trust, Belfast, Ireland

Introduction: The Eklund technique is critical for visualising breast tissue in clients with implants, offering additional projections to enhance breast image interpretation. The success of this technique relies heavily on the skills and expertise of the performing mammographer [(1)].
Current training methods for Eklund projections often vary between departments, potentially impacting mammographer performance and therefore image quality.
This study aims to assess mammographers' perspectives on current training methods and identify areas for development in executing the Eklund technique.
Methods: A quantitative study consisting of a structured survey with 9 close ended questions was distributed electronically to breast units and breast imaging training centres, to assess mammographers' perspectives on current training methods, training satisfaction levels and areas for development.
Results: 41 mammographers participated in the study.
Findings revealed that 82% felt inadequately prepared for clinical practice, with 75% reporting challenges in applying the Eklund technique.
93% of participants emphasised the need for increased hands-on practice and expressed interest in simulation-based training tools to enhance their skills.
Conclusion: This research highlights that training to undertake Eklund projections needs to be further developed. Simulation techniques and innovative devices could support this training. It is through the implementation of such training that would allow mammographers to optimise their performance and facilitate the early detection of breast cancer.
The findings of this research emphasise the limitations of current training methods for mammographers, highlighting the need for more comprehensive and up-to-date training programs and innovative training tools to strengthen breast cancer screening initiatives.

1. Moneme NC, Curtis J. Radiographer mammographers' attitudes towards implementing new techniques for imaging the augmented breast, after viewing a training DVD or receiving cascade training: A survey. Radiography. 2018;24(4): 287-294. doi:10.1016/j.radi.2018.07.006.

RFP.08 From shadow to spotlight: raising the profile of Advanced Clinical Practitioner's in breast imaging.

Rachel Greenwood, Joleen Kirsty Eden
Bolton NHS Foundation Trust, Bolton, United Kingdom

Background: The Advanced Clinical Practitioner (ACP) role in breast imaging enhances patient outcomes, service efficiency, and multidisciplinary collaboration. However, integrating ACPs into breast imaging teams remains challenging, particularly in gaining acceptance from radiologists and managers. This case study explores the journey of an experienced enhanced practitioner into the ACP role and their integration into the team.
The ACP Role: The role encompasses a wide range of advanced clinical responsibilities, including ultrasound and image guided intervention, interpreting mammograms, and contributing to clinical decisions in cancer care. The role bridges the gap between traditional radiographer and radiologist duties, addressing increasing patient demands and optimising workflow efficiency.
Challenges Faced: Despite the clear benefits of the ACP role, several challenges were encountered during the transition between one breast unit and another: • Resistance to change: Concerns about role overlap with radiologists.
• Shifting perceptions: Limited understanding of ACP competencies and value.
• Role definition: Establishing clear responsibilities within the team.
Strategies for Integration: • Service Needs: Identified skill gaps across NHS trusts supported the ACP business case and the recognition of the role.
• Targeted Advocacy: Workshops to highlight ACP expertise, qualifications and impact.
• Building Relationships: Open communication with radiologists and managers to define the role and support integration.
• Professional Development: HEE e-Portfolio validation for experiential learning and competency progression.
Conclusion: This experience highlights the integration challenges of the ACP role in breast imaging. However, these challenges are widespread and must be addressed to ensure the future sustainability of breast services.

1. NHS England. Workforce, training and education. NHS England. 2024 [cited 2025 Jan 28]. Available from: https://www.england.nhs.uk/ourwork/people/training/
2. NHS England. Multi-professional framework for advanced clinical practice in England. NHS England. 2021 [cited 2025 Jan 28]. Available from: https://www.england.nhs.uk/ourwork/leadership/advanced-clinical-practice/

RFP.09 Prospective open label study of the Magseed Pro® marker and Sentimag Gen3® system to localise breast cancer and axillary lymph nodes: initial results - a radiological perspective

Victoria Sinnett, Dariia Yanieva, Joanna Chavaria, Ruchi Gupta, Sau-Lee Chang, Steven Allen, Dione Lother, Basrull Bhaludin, Katherine Krupa, Rachel O'Connell, Radhika Merh, William Allum, Peter Barry
The Royal Marsden NHS Foundation Trust, Sutton, United Kingdom

Purpose: Para-magnetic markers are an established alternative to wire localisation to facilitate breast cancer and axillary node excisions. We report the radiological experience of insertion of the new Magseed Pro® markers from a single centre.
Methodology: A prospective clinical investigation testing the safety and efficacy of Magseed Pro® markers are reported with eligibility included impalpable breast cancer foci, and/or involved axillary nodes. The primary endpoint was retrieval rate of the Magseed Pro® within the target lesion. Secondary endpoints include rates of failure of deployment and marker non-migration, and maintenance of position at surgery. The safety endpoint was the rate of device-related adverse events.
Results: Data for Magseed Pro® markers inserted March 2023 - November 2024 in 74 patients (84 seeds) was complete. Sixty-one seeds (73%) were inserted into breast lesions, and 23 (27%) into lymph nodes. Markers were placed utilising sonographic (n=68) or mammographic guidance (n=16). Magseed Pro® insertion was recorded as 'very easy' or 'fairly easy' in 74 cases (88%), and 'fairly difficult' in 10 cases (12%) with no cases being reported as 'very difficult' or 'unable to localise'. Magseed Pro® were deployed within the target lesion in 76 (90%) procedures and outside the lesion in 8 (10%) procedures. Rate of Magseed Pro® retrieved with the target lesion was 100%. No instances of marker migration or device-related adverse events reported.
Conclusions: Magseed Pro® is an improved para-magnetic wireless marker with initial results suggesting that the utilisation of Magseed Pro® and Sentimag GEN3® system offers effective and safe wire-free localisation.

1. Morgan JL, Bromley HL, Dave RV, Masannat Y, Masudi T, Mylvaganam S, et al. Results of shared learning of a new magnetic seed localisation device – A UK iBRA-NET breast cancer localisation study. European Journal of Surgical Oncology [Internet]. 2022 Dec 1 [cited 2023 Aug 10];48(12):2408–13. Available from: https://www.sciencedirect.com/science/article/pii/S074879832200556X.
2. Barry, P.A., Harborough, K., Sinnett, V., Heeney, A., St John, E.R., Gagliardi, T., Bhaludin, B.N., Downey, K., Pope, R., O'Connell, R.L., Tasoulis, M.K., MacNeill, F., Rusby, J.E., Gui, G., Micha, A., Chen, S. and Claudia Krupa, K.D. (2023). Clinical utility of axillary nodal markers in breast cancer. European Journal of Surgical Oncology: The Journal of the European Society of Surgical Oncology and the British Association of Surgical Oncology, [online] 49(4), pp.709–715. doi:https://doi.org/10.1016/j.ejso.2022.12.019.

RAPID FIRE POSTER PRESENTATIONS

RFP.10 Establishing a dedicated granulomatous mastitis service

Adam Brown, Mauricio Arias, Harita Sivashankar, James Galloway, Gina Weston-Petrides, Lilia Ragad, Chirag Shah, Charlotte Longman, Nikhil Patel, Michael Michell, Clare Peacock, Bhavna Batohi, Keshthra Satchithananda, Rumana Rahim, Rema Wasan, Juliet Morel
King's College Hospital, London, United Kingdom

Purpose: Granulomatous mastitis (GM) is a rare, chronic inflammatory condition of the breast often misdiagnosed and mistreated with repeated courses of antibiotics (1). Effective management requires accurate diagnosis, identification of underlying causes and multidisciplinary care. Recognising the unmet need for a dedicated service, we established a granulomatous mastitis pathway at King's College Hospital, a large teaching hospital with a busy breast unit. Our objective was to streamline diagnosis, optimise treatment, and improve outcomes for patients with GM.
Methods: A dedicated GM service was developed with input from key specialties, including breast surgery, radiology, pathology, microbiology, infectious diseases, and rheumatology. Patients are referred to the service through the symptomatic breast clinic. All patients undergo thorough clinical evaluation, imaging and biopsy, followed by case discussion at a monthly multidisciplinary team (MDT) meeting. If an infectious or other identifiable cause is not identified, specialist rheumatology input is sought. A standardised diagnostic and treatment pathway was implemented to ensure consistent care.
Results: Since the service's inception, we have managed 24 patients. Imaging and biopsy have been critical for differentiating idiopathic GM from other aetiologies. Collaborative MDT discussions have led to individualised treatment plans, ranging from antimicrobial to immunosuppressive therapy. Early outcomes have shown significant symptom resolution in a small number of patients and increased patient satisfaction.
Conclusion: A multidisciplinary, structured approach is essential for managing granulomatous mastitis. Our dedicated service demonstrates how integration across specialties can improve diagnostic accuracy and patient outcomes. Future efforts will focus on expanding patient follow-up and auditing long-term results.

1. Kessler E, Wolloch Y. Granulomatous mastitis: a lesion clinically simulating carcinoma. Am J Clin Pathol. 1972;58:642–6. doi: 10.1093/ajcp/58.6.642.