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MYOMECTOMY SCAR ECTOPIC PREGNANCY: A CASE REPORT

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ABSTRACT

Myomectomy scar pregnancy is a potential life-threatening condition which need high index of suspicion and early recognition. Most patient are diagnosed with ultrasound, and some patient needs to under MRI pelvis examination to decide on the mode of treatment. We report a case of Mdm NSK, 40 years old lady who had previous history of robotic myomectomy for uterine fibroid and excision of endometriosis in 2023. She presented with pervaginal bleeding at 10weeks period of gestation. Ultrasound of the pelvis done shows a gestational sac at the fundal region with thinning of myometrium and proceed to urgent MRI Pelvis which confirmed the diagnosis. The patient undergone hysteroscopy and laparoscopic enucleation of myometrial pregnancy and repair of myometrial pregnancy.
Objective of this case report is to describe MRI findings of myometrial scar ectopic pregnancy for early diagnosis to assist in further management of these potential life-threatening conditions.

Keywords: Myomectomy, Scar ectopic pregnancy

GAS IN THE PANCREAS: UNVEILING A RARE AND FATAL VARIANT OF EMPHYSEMATOUS PANCREATITIS.VER2

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ABSTRACT

Emphysematous pancreatitis is a rare and life-threatening variant of acute pancreatitis, characterized by gas formation within pancreatic tissue due to infection by gas-producing organisms. It commonly occurs in immunocompromised patients, especially those with diabetes mellitus. Early diagnosis with CT imaging is critical for appropriate management. We reported a 60-year-old man with known diabetes and gallstones presented with severe epigastric pain and vomiting. Laboratory investigation showed markedly elevated serum amylase (4249 U/L). Abdominal radiograph demonstrated sentinel loop with faecal loaded, while ultrasound confirmed cholelithiasis. Contrast-enhanced CT revealed a distorted pancreas with extensive intraparenchymal gas, consistent with emphysematous pancreatitis. The patient was admitted to the ICU and received intensive supportive therapy. Despite aggressive intervention, he developed septic shock from necrotizing pancreatitis and eventually succumbed to the illness. As a conclusion, emphysematous pancreatitis is a rapidly progressive and fatal condition. Prompt recognition, early imaging, and multidisciplinary care are essential for improving prognosis.

Keywords: Emphysematous, necrotizing pancreatitis, gas-producing

BEYOND THE COLON: A RARE CASE OF JEJUNAL DIVERTICULITIS WITH PERFORATION AND COLLECTION

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ABSTRACT

Jejunal diverticulitis is a rare, often underrecognized condition due to its nonspecific presentation. Small bowel diverticulosis has a reported prevalence of 0.06–1.3% based on historical series, with jejunal diverticulitis being a rare complication. We report a 62-year-old man with hypertension, dyslipidemia, and gout who presented with five days of right iliac fossa pain and diarrhea. Examination revealed localized tenderness without signs of peritonism. Contrast-enhanced computed tomography (CT) demonstrated colonic and jejunoileal diverticulosis, with evidence of jejunal diverticulitis complicated by a focal sealed perforation and a few rim-enhancing perienteric collections. The patient was managed conservatively with intravenous antibiotics, resulting in full recovery and discharge within a week. This case highlights jejunal diverticulitis as a rare differential diagnosis for atypical abdominal pain in the elderly and emphasizes the pivotal role of contrast-enhanced CT in timely diagnosis and management.

Keywords: jejunal diverticulitis, jejunoileal diverticulosis, perienteric collections

EVALUATING THE DIAGNOSTIC ACCURACY OF SHEAR WAVE ELASTOGRAPHY GUIDED BIOPSY IN BIRADS 4 AND 5 BREAST LESION

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ABSTRACT

Background
Ultrasound-guided core needle biopsy has been considered a standard method of sampling breast lesions. Despite its high diagnostic accuracy, it may not always provide an accurate representation of the lesion due to the heterogeneous nature of breast tumors (intratumor heterogeneity). This study investigates the diagnostic accuracy of shear wave elastography (SWE) guided biopsy between high and low stiffness areas within the same lesion.

Methodology
This is a cross-sectional diagnostic accuracy study as it allows for the real-time assessment of SWE's effectiveness in a clinical setting. The patients with BI-RADS 4 and 5 breast lesions underwent shear wave elastography (SWE) assessment and ultrasound-guided core needle biopsy on the same day. SWE qualitative and quantitative parameters were recorded and correlated with histopathological outcome.

Results
Out of 35 samples, twenty-six patients (74%) had benign and nine (26%) had malignant histopathology results. Preliminary analysis shows promising correlation between qualitative classifications, Qual 1, especially with malignant lesions. Eight (89%) of the malignant lesions show type 4 and 5 qualitative classification which are typically seen in malignant lesions. Quantitative parameter, maximum elasticity value (Emax, kPa) shows no significant difference, median for high stiffness area is 27.85 kPa for benign lesion and 25.8 kPa for malignant lesion.

Conclusion
The qualitative parameters show promising results in this study, potentially improving malignancy detection and reducing unnecessary biopsies. Integration of SWE into routine breast imaging protocols may enhance diagnostic precision and patient outcomes.

Keywords: BI-RADS; Breast Biopsy; Shearwave elastography; Neoplasm

ENHANCING DIAGNOSTIC PRECISION IN BREAST CANCER STAGING: EVALUATING THE ROLE OF CONTRAST-ENHANCED MAMMOGRAPHY

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ABSTRACT

Background
Contrast-Enhanced Mammography (CEM) enable enhances tumor visualization through vascular contrast, while Digital Breast Tomosynthesis (DBT) offers improved structural assessment with 3D reconstruction. This study evaluates the diagnostic performance of CEM in comparison with tomosynthesis for breast cancer staging.

Methodology
Methods
From January 2024 to May 2025, 69 women with BIRADS 4 and above lesions were prospectively recruited. These patients underwent both Contrast-Enhanced Mammography (CEM) and Digital Breast Tomosynthesis (DBT) as part of their preoperative staging. Patient whose histopathology showed malignancy were recruited. Lesion type, extent, and distribution, including multicentricity, multifocality, and bilaterality are evaluated.

Results
A total of 40 malignant lesions were confirmed histologically: 30 invasive carcinomas (including 6 ductal, 4 lobular), 5 ductal carcinomas in situ (DCIS), and 1 mucinous adenocarcinoma. Among invasive carcinomas, 4 were multicentric, 11 multifocal, and 15 unicentric. Of the DCIS cases, 1 was multifocal and 4 unicentric. Bilateral malignancy was identified in 2 patients.
Both CEM and tomosynthesis achieved 100% sensitivity in detecting malignant lesions in this cohort. CEM provided superior visualization of vascularized tumor components, particularly in multifocal and multicentric cases.

Conclusion
These findings support CEM as a reliable and efficient tool for comprehensive surgical planning, especially in cases where MRI is not accessible or tolerated.

Keywords: CEM, CEM in preoperative staging

COMPARISON OF DIGITAL BREAST TOMOSYNTHESIS, ULTRASOUND AND ARTIFICIAL INTELLIGENCE IN SCREENING IN WOMEN WITH DENSE BREASTS

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ABSTRACT

Background
Breast cancer remains the most prevalent cancer among Malaysian women, with reduced mammographic sensitivity in women with dense breasts. This study evaluates the diagnostic performance of combining digital breast tomosynthesis (DBT) with adjuncts like ultrasound (US) and artificial intelligence (AI) in screening women with dense breasts, with the aim to determine the most effective screening approach for local implementation.

Methodology
This retrospective study includes 402 women with dense breasts (mean age, 55) screening DBT between May 2021 to December 2023. Supplementary US and AI evaluation of DBT images using Lunit Insight MMG (v1.1) were utilized. Two readers (breast radiologist (A) and a trainee) blinded to histopathology results independently assessed DBT and US images. Evaluation discrepancies resolved by breast radiologist (B). AI performance was analysed with predefined threshold value for suspicious lesions. Malignancy was confirmed histologically, while benign findings required 24 months of imaging stability. Diagnostic performance of DBT, DBT+US, DBT+AI, and DBT+US+AI were compared using sensitivity, specificity, and accuracy.

Results
Three invasive breast carcinomas; two invasive ductal carcinomas; one ductal carcinoma in situ were diagnosed (n=6). Sensitivity, specificity, and accuracy for DBT were 75.0%, 96.2%, and 95.8% respectively. DBT+US, DBT+AI and DBT+US+AI showed sensitivity of 100.0%, 87.5%, and 100.0% ($p<0.05$); specificity of 93.4%, 96.2%, and 93.7% ($p<0.05$); and accuracy of 93.5%, 96.1%, and 93.8% ($p<0.05$) respectively.

Conclusion
Combining DBT with AI/US significantly enhances breast cancer detection in women with dense breasts. DBT+US+AI yields the most comprehensive diagnostic benefit and may guide future screening approaches in resource-optimised healthcare settings.

Keywords: artificial intelligence, breast cancer screening, dense breasts, digital breast tomosynthesis, ultrasound

A RETROSPECTIVE AUDIT OF ULTRASOUND-GUIDED CORE-NEEDLE BREAST BIOPSIES WITH HISTOPATHOLOGICAL CORRELATION BASED ON BIRADS CLASSIFICATION AT HOSPITAL MIRI IN 2023 AND 2024

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ABSTRACT

Background

Breast cancer is one of the most common cancers among Malaysian women, and early detection significantly improves outcomes. At Hospital Miri, breast assessments are performed using mammography and ultrasound, with findings categorized using the BI-RADS (Breast Imaging Reporting and Data System).

The BI-RADS system standardizes imaging reports and guides biopsy decisions. Ultrasound-guided core needle biopsy, with histopathology as the gold standard, is key for diagnosis.

This audit aims to evaluate the diagnostic accuracy of imaging findings in predicting histopathological outcomes, identify discordant cases, and assess potential areas for improvement in radiologic interpretation.

Methodology

A retrospective review was conducted on patients who underwent both imaging and subsequent histopathological evaluation of breast in year 2023 and 2024. A total of 1145 female patients underwent both ultrasound and mammogram during this period.

Between 2023 and 2024, 67 women with BI-RADS 3 to 5 breast lesions at Hospital Miri underwent ultrasound guided core needle biopsies. Although most BI-RADS 3 cases are typically monitored, a few were biopsied due to patient's concern. Histopathology results were compared with imaging findings to assess the diagnostic accuracy.

Core Biopsy Needles

Biopsies were performed using 14–16G Temno semi-automatic or Magnum automatic needles:

- Temno: For small, superficial lesions; offers better control.
- Magnum: For larger, deeper lesions; faster and collects more tissue.

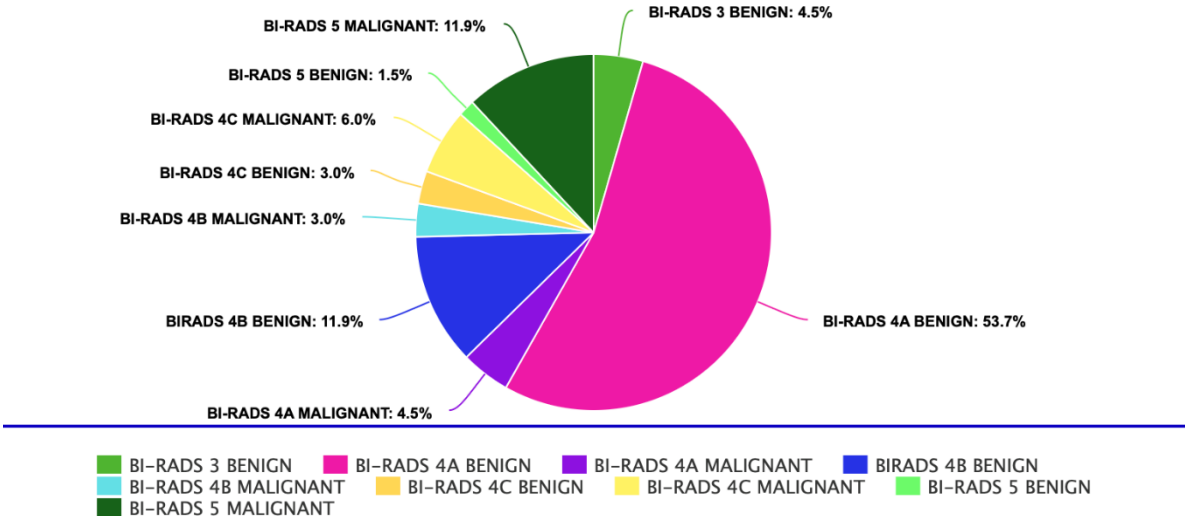
Keywords: *breast, BIRADS classification, malignancy, audit*

Results

BI-RADS SCORING	2023	2024
0	0	0
1	80	80
2	338	311
3	80	109
4A	19	25
4B	11	9
4C	9	11
5	32	18

6	7	6
TOTAL	576	569

BIRADS SCORING	BENIGN	MALIGNANT
3	3	-
4A	36	3
4B	8	2
4C	2	4
5	1	8
TOTAL	50	17



Conclusion

The audit demonstrates a good correlation between imaging and histopathological findings in the evaluation of breast lesions, with imaging achieving high sensitivity and specificity.

BREAST CANCER SCREENING PROGRAM: A PRELIMINARY EVALUATION OF ITS DIAGNOSTIC PERFORMANCE DURING AWARENESS CAMPAIGNS AT HOSPITAL AL-SULTAN ABDULLAH (HASA) IN 2021

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ABSTRACT

Background
Breast cancer is a leading cause of cancer-related deaths among women. Early detection via mammogram screening improves survival. In Malaysia, screening occurs year-round, with increased outreach during Breast Cancer Awareness Month (BCAM). There is limited data on the diagnostic performance of screening mammograms in Malaysia's multiethnic population. This study examines whether BCAM increases cancer detection rates.

Methodology
Secondary data from asymptomatic women who underwent mammograms at HASA between April and December 2021 were analysed and divided into BCAM (October–December) and non-BCAM (April–September) groups. Mammogram findings based on the American College of Radiology (ACR) - Breast Imaging Data and Reporting System (BI-RADS). Histopathology was the diagnostic gold standard for the presence of breast cancer. Cases without biopsy would be followed up for two years.

Results
Out of 283 women screened, 91.2% (n=258) attended during BCAM, with a younger age profile (mean 48.7 vs. 54.6). The BI-RADS 2 classification was most common (66.8%). In the BCAM group, 26 women were BI-RADS 4 and biopsied with results negative for cancer. One woman was BI-RADS 5 and proven to have cancer histopathologically. In the non-BCAM group, only one woman underwent biopsy (non-cancer) for BIRADS 4. High-risk women were more likely to attend screening during non-BCAM (36%) than BCAM (12.8%). The cancer detection rate was 3.53 per 1,000. Sensitivity, specificity, PPV, NPV, and accuracy were 1.00, 0.75, 0.04, 1.00, and 75%.

Conclusion
Screenings increased during BCAM improved the cancer detection rates. More high-risk women attended outside BCAM, indicating a need for year-round targeted outreach

Keywords: breast cancer; screening; breast cancer awareness

BREAST CARCINOMA WITH EXTENSIVE METASTASES: A CASE REPORT

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ABSTRACT

Breast cancer is a common malignancy among women, with metastases typically involving the lungs, bones, liver, and central nervous system. Gastrointestinal and uterine metastases are rare. We report a case of a 55 year old woman presenting with bilateral breast lumps, epigastric pain, altered bowel habits, significant weight loss, and abnormal uterine bleeding. Imaging revealed bilateral suspicious breast lesions (BIRADS 4C), diffuse gastrointestinal mural thickening, serosal metastasis, bulky uterus and bone metastases. Breast biopsy confirmed invasive lobular carcinoma. Pipelle endometrial sampling revealed metastatic lobular carcinoma of breast origin within the uterus. This case illustrates widespread metastases including rare involvement of the gastrointestinal tract and uterus, consistent with advanced lobular breast carcinoma. Management was focused on systemic therapy for metastatic disease. Early recognition of atypical metastatic patterns is crucial, particularly in lobular carcinoma, which may present with diffuse and non-mass-forming lesions in uncommon sites.

Keywords: Breast Cancer, Uterine metastasis, Serosal metastasis, Lobular carcinoma, Metastasis