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BREAST POSTER PRESENTATIONS

P063 Management of clinically indeterminate (P3) breast lesions at a tertiary centre

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Background: P3 (clinically indeterminate) lesions are investigated with ultrasound (<40 years, pregnant or lactating) or ultrasound and mammography (>40 years). Image guided biopsy is performed following uncertain or suspicious radiological findings (M3-5 / U3-5), freehand core biopsy is indicated in P3 lesions with normal imaging. Fine needle aspiration cytology (FNAC) is not recommended.

Method: Retrospective assessment of 149 electronic patient records for patients with P3 lesions between 25/4/2019-25/9/2019.

Results: 26% (38/149) had normal imaging (U1/M1). 3% (1/38) had FNAC and 3% (1/38) had ultrasound core biopsy. 63% (24/38) had freehand biopsy with 13% (3/24) showing indeterminate or suspicious histology (B3-5). 32% (12/38) were discharged without biopsy.

43% (64/149) had benign imaging (U2/M2). 23% (15/64) were discharged including a 68-year-old patient with solid lesion but benign imaging characteristics. 58% (37/64) had ultrasound guided cyst aspiration. 2% (1/64) had FNAC, 2% (1/64) had ultrasound core biopsy and 16% (10/64) had freehand biopsy, with normal pathology.

32% (47/149) had indeterminate or suspicious radiological findings (M3/U3-M5/U5). All of these were appropriately managed and 70% (33/47) were B3-5.

8% (12/149) with discordant clinical and radiological findings did not have biopsy. 2 patients with normal/benign imaging had ultrasound core biopsy and FNAC. These were evaluated on a case per case basis and patient safety was ensured.

Conclusion: The pathway for management of indeterminate breast lesions was appropriately followed for the most part. In case of deviation from the pathway, careful consideration was paid to patient safety with justification for the change applied.

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P064 A pictorial review of metastatic breast cancer to the urinary bladder

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Background: We report a case of an 80-year-old female with a known history of breast cancer on adjuvant aromatase inhibitor treatment who presented with urinary incontinence. Upon investigation, she had microscopic haematuria and impaired renal function. CT imaging of the kidney, bladder and urinary tract revealed thickening of the posterior bladder wall and right sided hydronephrosis (shown in Fig. 1 and 2).

Discussion: Breast cancer with urinary bladder metastasis is a rare disease presentation, accounting for 2% of solid bladder tumour metastases [1]. Urinary bladder metastasis is rare, with a recent systemic review in March 2020 showing 65 cases reported in the literature [1]. Breast cancer metastasis is linked to the histological type of cancer. Lobular carcinoma tends to metastasize to serosal surfaces [1]. The patient, in this case, had the infiltrating lobular carcinoma subtype, which is in keeping with the literature. Urinary symptoms at presentation can range from gross haematuria, polyuria, nocturia, microscopic haematuria and incontinence, the latter two of which our patient had [2]. These symptoms highlight the need for an urgent investigation into patients with urinary symptoms with a history of breast cancer. Further investigations should include CT images of the whole body to determine any metastatic disease.

Conclusion: This case highlights the need for a prompt investigation into patients presenting with urinary symptoms and a history of breast cancer. With advancements in imaging and therapies for cancer patients, the life expectancy of patients is increasing. The standard workup for surveillance and metastatic disease may require a change in the future.

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P065 Breast cancer: Invasive Lobular Carcinoma

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Objective: To examine the strengths and weaknesses of imaging modalities involved in the management of Invasive Lobular Carcinoma.

Conclusions: Both U/S and MRI have their separate benefits but both are needed to obtain the most information for the patient. U/S is the foundation necessary before MRI is even considered and MRI is there to supplement initial findings

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P066 Planning technique evaluation for breast patients: Forward and inverse Intensity Modulated Radiotherapy and Volumetric Modulated Arc Therapy

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Background: Currently small and medium breast patients are planned 6/10MV Field in Field (FiF) and larger patients with Intensity Modulated Radiotherapy (IMRT). The aim was to introduce/evaluate 6MV IMRT on small/medium patients and Volumetric Modulated Arc Therapy (VMAT) on larger patients; and to ensure the techniques were comparable and robust. Previous studies (1,2) looked at planning technique but not in terms of breast size and plan robustness.

Methods: Twenty-seven patients were included in the study. Plans were compared using relevant PTV and organ-at-risk dose statistics, and total monitor units (MU). IMRT and VMAT plans were re-calculated with shifts of +/-1cm along each axis to assess robustness. Gamma analysis was performed using portal dosimetry.

Results: On the small/medium cohorts (FiF vs IMRT): lung and PTV doses were within 1-3%. IMRT plans had better coverage on the sup/post border and some plans showed better anterior tumour coverage. IMRT plans have higher MU and more complex fluences but portal dosimetry was within departmental tolerances. On the large cohort (VMAT vs IMRT): The plan uncertainty evaluation showed PTV D90% & D2% were within 1-2Gy. On VMAT plans the ipsilateral lung doses V17Gy (%Vol) was 7% lower and the mean heart doses and contralateral breast/lung is higher by approximately 0.5-2Gy.

Conclusion: Our results suggest FiF and IMRT plans had comparable lung and PTV doses; VMAT and IMRT plans demonstrate similar levels of robustness. After this study, the most complex breast patients can be planned using both VMAT and IMRT. We are introducing IMRT for some smaller/medium breast patients.

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DENTAL / HEAD & NECK / NEURO POSTER PRESENTATIONS

P069 Enhanced 3D anatomical information - application to 3rd molars

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Background: Third molar also known as the wisdom tooth sometimes can be impacted. It is because they don't have enough room to emerge and to develop normally. Those impacted third molars can lead to gum disease, tooth decay, inflammation and pain if left untreated. To determine the precise location of the wisdom tooth when intra-oral or panoramic images are not conclusively showing a safe margin with the dental nerve, advanced Cone Beam CT (CBCT) is used prior to any treatments or extraction to avoid injury.