Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company’s public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
MEASUREMENT OF SPICULATED MALIGNANT LESIONS ON MAMMOGRAM—DO WE INCLUDE THE LENGTH OF THE SPICULES?

Afroza Sharmin, Azhar Alani, Aliaa Shamardal, Ivy Menkarios, Abdul Kasem, Prakash Sinha, Sudeendra Dodd, Anna Metafa. King’s College Hospital NHS Foundation Trust, London, UK

Introduction: The size of a malignant breast lump pre-operatively is important to decide between mastectomy and breast conserving surgery. There are no recent studies to determine what is the optimal way to measure spiculated malignant lesions on mammogram which are histologically invasive ductal carcinoma (IDC). This study aimed to determine if the core size or size with spicules has better co-relation with the final histologic size.

Methods: The Oncology database was used to extract data on breast cancer patients for 48 months from January 2014 to December 2017. Only invasive ductal carcinoma was included in the study since patients with invasive lobular carcinomas have MRI for assessment. The mammographic size of ductal carcinoma was included in the study since patients with invasive lobular carcinomas have MRI for assessment. The mammographic size of ductal carcinoma was included in the study since patients with invasive lobular carcinomas have MRI for assessment.

Pearson correlation co-efficient (R) was used to find the correlation between core size, size with spicules and final histologic size.

Results: The study cohort included 195 patients. The age range was 42–93 years and mean 70 years. The mean of the core size was 16.6 mm; when spicules were included the mean size was 27.4 mm and final histologic size 21.1 mm. Using unpaired Student ‘t’ test difference in the means was statistically significant (p<0.0001). Pearson number (R) core size versus final histologic size was 0.395 (P-value <0.001) and for size with spicules versus final histologic size was 0.495 (P-value <0.001).

Conclusion: Our study demonstrated that the core size has a stronger positive correlation to final histologic size and should therefore be used pre-operatively in decision making about surgery.

CASE REPORT LOCOREGIONAL RECURRENTNESS OF A NON-SMALL-CELL LUNG CARCINOMA AFTER COMPLETE RESECTION IN A NON-SMOKER PATIENT: THE COMPLETE FOLLOW-UP

Fernanda Costanzo 1, Ana Claudia Franzoni 2, Leonardo Esmeraldino 1, Maria Eduarda Valgas 1, 1 UNISUL Pedra Branca, Palhoça, Brazil; 2 Hospital Baia Sul, Florianópolis, Brazil

The incidence of locoregional recurrence of non-small-cell (NSCLC) lung carcinoma is high1, even in total surgical remove in the primary tumor. We report the case of a 64-years-old without comorbidly, non-smoker female patient who presented at first an adenocarcinoma in anterior segment in right anterior lobe, treated with completed extraction. After 6 years in remission, the patient was surprised with the presented of a new tumor in the same local as the earliest tumor. The histopathology showed a same cell pattern. The overall analysis from this case report allow us to see the important of classical follow-up in oncological patient. In this article, we discute the particulars of an adenocarcinoma recurrence, the main symptoms of the disease, and the best treatment approach that can be chosen for the medical group nowadays.

ACHIEVING 62-DAY TARGETS IN THE MANAGEMENT OF SKIN CANCER – LESSONS LEARNED AND FUTURE DIRECTIONS

Chantal Patel, Aliibhe Kiely, Amir Ismail. University Hospitals of North Midlands, Newcastle under Lyne, UK

Aim National UK cancer guidance recommends that patients begin the first definitive treatment within 62 days of urgent GP referral. This study established the reasons for delay in skin cancer patients undergoing excision at a busy UK skin cancer unit.

Methods: Analysis of the timeline from GP referral to treatment was undertaken for all patients who breached the 62-day target for cutaneous squamous cell carcinoma (SCC) and melanoma between Oct 2017—Sep 2019. Factors involved in the breach were identified and explored. Statistical analysis was undertaken using SPSS.

Results: Seventy-two patients (mean age 79 [SD 10.9]) with 65 SCCs and 7 melanomas breached the 62-day target, making up 10.1% (72/713) of the skin cancers treated for the time period. The median time from referral to procedure in patients who breached was 75 days (IQR 68–90). The longest delays occurred in those who had an initial diagnostic biopsy (mean 54.0 [SD 26.9]) or an initial appointment with dermatology that were subsequently referred to plastic surgery (mean 42.7 [SD 25.0]) days. Delays were most commonly due to inadequate operating capacity (29%), followed by delays due to patient fitness for surgery (26%).

Conclusions: This project has identified targets for streamlining the skin cancer referral pathway (e.g. initial incision biopsy, or those referred from dermatology for definitive excision). We discuss reform strategies such as ‘see & treat’ services, direct referrals to plastic surgery for specific lesions (e.g. cosmetically sensitive areas) and the use of ‘fast track’ histology pathways.

CHARACTERISING THE ROLE OF HYALURONIC ACID RECEPTOR ‘HMMR’ IN REGULATING NEUROBLASTOMA CELL GROWTH AND SURVIVAL

Raghav Aggarwal 1, 2, Andrew Stoker 1, Alessia Di Florio 1, 3 University College London, UK; 2 Great Ormond Street Institute of Child Health, UK

Recent work conducted by the Stoker team at the GOSH Institute of Child Health has highlighted a gene of interest, HMMR, whose overexpression has been linked to poorer prognosis in neuroblastoma—a condition which remains a complex oncological challenge in young children. The Hyaluronic Acid-Mediated Motility Receptor (HMMR) is strongly implicated in driving tumourigenesis through its interactions with two key signalling molecules—Hyaluronic Acid (HA) and Aurora Kinase A (AURKA)—however its role in promoting disease progression in neuroblastoma has received little attention to date. This project aims to characterise, for the first time, the role that HMMR plays in regulating neuroblastoma cell growth and survival through Hyaluronic Acid and Aurora Kinase A. Three neuroblastoma cell-lines (LAN-1, SK-N-DZ and KELLY) were treated with a range of HA and AURKA inhibitor (4MU and AKI, respectively) concentrations, and cell survival was analysed 6 days post-treatment. To assess their effects in combination, 4MU and AKI were also administered together in a range of dual concentrations through a ‘drug synergy assay’. All cell lines were highly sensitive to 4MU and AKI inhibitors; this suggests a dependency of neuroblastoma cell-lines on HA and AURKA for survival. Drug synergy assays demonstrated distinct patterns of synergy for each cell-line. Promising initial data surrounding the effectiveness of key inhibitors, 4MU and AKI, highlights that the HMMR-HA axis could be central to neuroblastoma progression. Their enhanced effects when administered in combination is especially of note, and may provide an exciting avenue for the development of novel therapeutics against this aggressive disease.

THE DIFFERENCES IN APPROACHES TO DIAGNOSIS AND MANAGEMENT OF UROLOGICAL CANCERS BETWEEN THE UK, EUROPE AND THE US DURING THE COVID-19 PANDEMIC

Thomas Fonseka, Ricky Ellis, Hesham Salem. Royal Derby Hospital, Derby, UK

Background/Introduction: At the peak of the COVID-19 pandemic many urological cancer diagnostic and management services were restricted. We compare the COVID-19-specific guidelines on diagnosis and management of the main urological cancers between the UK, Europe and the US to investigate differences in approaches.

Method: The British Association of Urological Surgeons (BAUS), European
Association of Urology (EAU) and the Cleveland Clinic COVID-19 guidelines were used to represent the UK, Europe and the US, respectively. The prioritisation and management of upper tract urothelial carcinoma, prostate cancer, bladder cancer and kidney cancer underwent widespread direct comparison.

**Results:** Across major urological cancers it was found that BAUS guidelines favoured more conservative management compared with EAU and the US. Where the US was more aggressive in its approach to treatment compared with both the UK and Europe, surgical management was more likely in US guidance than Europe and the UK, particularly seen in muscle-invasive bladder cancer.

**Discussion:** There is variance in the diagnostic and therapeutic approaches to urological malignancy between the UK, Europe and the US. This may be influenced by the structural differences in the health care systems.

**Conclusion:** Cohort studies are needed to compare, internationally, the long-term outcomes of the varying approaches to managing urological cancers during COVID-19.

30

**MANAGEMENT OF PATIENTS WITH RETROPERITONEAL MASSES - A 10-YEAR EXPERIENCE OF THE DEPARTMENT OF SURGERY OF UNIVERSITY HOSPITAL OF PATRAS**

Francesk Muilta, Levan Tchabashvili, Elias Liolis, Nikoleta Oikonomou, Ioannis Maroulis. **General University Hospital of Patras, Patras, Greece**

**Introduction:** Retroperitoneal masses are a rare but important group of neoplasms that pose a diagnostic challenge for medical physicians. Most of them are malignancies and are more prevalent in adults. However, they can occur at any age. Failure to recognize them on imaging can lead to inappropriate management. The most common subtypes of retroperitoneal malignancies are liposarcoma (70%) and leiomyosarcoma (15%), which have characteristic imaging appearances. We report herein our experience of 10 years of surgical management of retroperitoneal masses.

**Method:** We evaluated 31 patients with retroperitoneal masses operated in our department from August 2010 till July 2020 with regard to patients' demographic characteristics, intra-operative time, the location and size of tumor, histological grade and local recurrences.

**Results:** The mean age of patients was 54 years (range, 18 to 85). Fourteen (45.16%) were female, and seventeen (54.84%) were male. The mean intra-operative time was 214 minutes (range, 65 to 720 minutes). Four patients (12.90%) were reported to have benign tumors, while 27 (87.10%) were reported to have malignancies. The most frequent malignant tumor was liposarcoma. Intra-operative time was detected 13.87 cm. The earliest local recurrence was detected in the 9th month and the latest in the 48th month.

**Conclusion:** Retroperitoneal masses are rare and the majority of them are malignancies. Early recognition is very important and complete surgical resection in high-volume centers is the best remaining treatment option.

40

**TWO DECADES OF EXPERIENCE WITH SENTINEL NODE STAGING OF AXILLA – IS FALSE NEGATIVE NO LONGER A WORRY?**

Taheera Arif, Mohammed Shamim Absar. **Penneine acute Hospitals NHS Trust, Manchester, UK**

**Background:** Axillary conservation is the way forward after game changing trials like ACOSOG Z0011, surrogate trials like IBCSG,AMAROS, ALMANAC, on-going POSNOC, and newbie ATNEC have decreased the need to fiddle with the axilla. Current standard is the utilisation of double technique with radioisotope and blue dye to decrease false negative rates for true sentinel node retrieval.

**Method:** Literature search on the topic in the last two decades.

**Results:** The search yielded 197 publications which were subjected to a meticulous review and to extrapolate suggested guidance.

**Conclusion:** Single agent preferably radioisotope is recommended in palpable and good biology tumours. Use of single agent blue dye can be standardised in axillary tail tumours. It is also recommended when isotope mapping is logistically not feasible or during pandemics like COVID 19 where looming infrastructure challenges are prevalent. Dual agent technique should be considered in previously treated breast and axilla, neo-adjuvant chemotherapy cohort, bad tumour biology, high BMI and macromastia groups for true nodal retrieval. Optimal number of nodes taken out should not be more than three (n = 3). Lower axillary sampling of not more than 3 nodes is recommended for troubleshooting with any localising agent technique. Triple site injection at peri-tumoural, subcutaneous and sub areolar regions and larger volume of blue dye agent injection of up to 8mls increases the localisation success in the dual technique group for lymphatic mapping. Magnetic tracing can be used as an adjunct to either single agent (RI/BD) technique when there is failure to localise the sentinel node.

41

**DEVELOPING A NON-BIOPSY PROTOCOL FOR THE FEMALE COHORT 25-29 YEARS WITH CLINICALLY TYPICAL FIBROADENOMA CONFORMING TO MAXWELL CRITERIA ON ULTRASOUND – OUR PENINSULAR EXPERIENCE IN WIRRAL**

Taheera Arif, Raman Vinayagam. **Wirral university teaching hospital NHS trust, Wirral, UK**

**Background:** The aim of this study was to introduce a non-biopsy protocol in our department for benign breast lump referrals confirmed as typical U2/3 fibroadenoma on imaging. The cohort of women between 25-29 years of age with sonographic features (Maxwell non-biopsy criteria) U2/3 typical of fibroadenoma does not miss malignancy. Current UK guidance is not to biopsy sonographically typical fibroadenoma in women under 25 years.

**Method:** Retrospectively data was collected of all women between 25-29 years of age undergoing core biopsies for ultrasound confirmed both simple and complex fibroadenoma at Clatterbridge General Hospital between 2014 and 2019 over a period of five years.

**Results:** We saw increment in referrals in this group of young women from n = 260 to n = 386 over the five year study period. A total of 1707 referrals were made across five years. n = 175 image guided core biopsies were carried out for U2, U3, U4 lesions appearing as fibroadenoma on ultrasound. Out of these (n = 175), all lesions coded U2/3 (n = 165) based on Maxwell criteria on ultrasound were negative for cancer. U4 lesions on ultrasound were confirmed as cancers mimicking fibroadenoma (n = 10).

**Conclusions:** This retrospective audit of 1707 patients provides sound evidence for safe non-biopsy of typical fibroadenoma in women 25-29 years when clinical and sonographic features meet strict criteria. We started using the non-biopsy protocol using Maxwell criteria for U2/3 lesions. We need data to be audited prospectively and provide level 1 evidence to the same effect.

42

**RURAL AND PENINSULAR EXPERIENCE ON WIRRAL - OUR INITIAL EXPERIENCE WITH MAGNETIC SEED LOCALISATION OF IMPALPABLE BREAST TUMOURS**

Taheera Arif, Raman Vinayagam, Jonathan Michael Lund, Shabbir Poonawala. **Wirral University Teaching Hospital, Wirral, UK**

**Background:** Magseed is a novel localization technology in which a tiny seed is inserted to accurately mark the site of breast tumour. These can be implanted days prior to surgery and do not require use of radioactive material. It aids localization of impalpable breast lesions improving margin clearance rates.

**Methods:** A study was undertaken of 50 patients undergoing Magseed localization of non-palpable breast lesions in rural and urban areas of Wirral Peninsula in the UK. Data including age, mode of localization (Stereo-guided/ Ultrasound guided), presentation (Symptomatic/Screen detected), and time to surgery after localization, size and weight of specimen, histology and re-excision rates was collected between June 2019 and November 2019.

**Results:** A total of 50 patients had 52 Magseed inserted. n = 14 were