133. TROPHOBLASTIC TUMOUR, UNCLASSIFIED WITH EXTENSIVE METASTASIS ASSOCIATED WITH AN UNEVENTFUL PREGNANCY – A CASE REPORT

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Malignant gestational trophoblastic disease is an uncommon disease which is often preceded by abnormal pregnancy or, very rarely, associated with uncompleted pregnancy. Here we report a recent case of a poorly differentiated placental malignancy with choriocarcinomatous features with extensive metastasis diagnosed in pregnancy. The patient is a 33 year old G3P1 female who initially presented symptoms of 5 weeks of shortness of breath and 1 week of haemoptysis at gestational age of 33 weeks in December 2014. Chest computed tomography scan and echocardiogram showed a large pulmonary mass extending into the left atrium through right pulmonary vein. A multidisciplinary decision was made to deliver the current 'uneventful' pregnancy followed by biopsy of the lung lesion. An elective Cesarean section delivered a healthy baby boy. Macroscopic examination of the placenta revealed multiple cream to pale firm nodules measuring 2 mm to 15 mm in maximum dimension. Microscopically, the cellular tumour showed high grade epithelioid to spindle shaped cells some of which were of a rhabdoid appearance. Monstrous tumour giant cells were present imparting the tumour a choriocarcinomatous appearance. However, there were no apparent haemorrhage or tumour necrosis. Immunohistochemistry study showed that tumour cells were positive for CD10, vimentin, CK8/18 and focally positive for beta-HCG and NSE. The tumour was negative for HPL, PLAP, inhibin, SALL4, OCT4, PAX8, TTF1, Napsin A, CD56, synaptophysin, chromogranin, beta catenin, oestrogen receptor, progesterone receptor, HER2, Melan A, HMB45, S100, CK7, CK20, CK19, C-Kit and CD99. Neither EGFR or BRAF was positive. Given the clinical history, patient demographics, morphology features and immunohistochemistry results, the tumour was regarded for pragmatic reasons as trophoblastic tumour, unclassified. Further investigation including PET scan and brain MRI indicated multiple metastatic lesions involving brain, lung, mediastinal nodes, pericardium, breast, liver, adrenal gland, bones, and scalp. Pathology result of the scalp biopsy showed metastatic tumour cells with similar features as the placental counterpart. Chemotherapy was then employed and the patient initially responded well. After three months, however, there was biochemical and radiological evidence of relapse and despite second-line chemotherapy she then relapsed with multiple cerebral haemorrhagic metastasis. The patient subsequently continued to deteriorate and no further active treatment is planned.

134. PLASMA ctDNA FOR THE DETECTION OF EGFR MUTATION STATUS IN ADVANCED NSCLC (aNSCLC) AS PER LOCAL DIAGNOSTIC PRACTICES: JAPANESE SUBSET DATA FROM ASSESS

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Background: ASSESS (a large, multicentre, non-interventional, diagnostic study; NCT01785888) evaluated *EGFR* mutation status concordance between ctDNA and tissue in patients with aNSCLC in Europe/Japan.

Aim: To determine the utility of ctDNA for detection of *EGFR* mutation status in real-world practice.

Methods: Eligible patients: local/metastatic aNSCLC; chemotherapy-naïve, newly diagnosed/recurrent disease after resection; ineligible for curative treatment. We report *EGFR* mutation status concordance between matched plasma and tissue/cytology samples (primary endpoint) in the subset of patients from Japan.

Results: Three hundred Japanese patients enrolled: 291 eligible; 281 tissue/cytology evaluable; 291 plasma evaluable. Most common reason for not testing tissue/cytology sample: insufficient material provided (56% [5/9 responses]). Mutation status concordance in 281 matched samples: 81% (95% CI 76–85); sensitivity: 40% (29–51); specificity: 99% (96–100); positive predictive value (PPV): 94% (81–99); negative PV (NPV): 79% (73–84). In a subset of 94 patients, sensitivity increased from 17% to 52% when plasma was retested using optimised ctDNA extraction methods designed for smaller, fragmented DNA. Overall concordance, sensitivity, PPV, and NPV were higher when optimised extraction data were incorporated: concordance, 84% (80–88); sensitivity, 51% (40–62); PPV, 96% (85–100); NPV, 82% (77–87); specificity remained constant.

Conclusions: These first real-world data suggest ctDNA is a feasible, suitable sample type for *EGFR* mutation analysis; high-quality, robust/sensitive analysis methods for tumour and plasma samples are required to facilitate accuracy.

135. A CASE OF EXTRA-UTERINE BENIGN ENDOMETRIAL STROMAL NODULE ARISING IN THE BROAD LIGAMENT IN THE ABSENCE OF A CLINICAL HISTORY OF ENDOMETRIOSIS

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Endometrial stromal tumors (ESTs) are commonly found in both the uterus and the ovary. They exhibit a wide range of

differentiations histologically, and their malignant potential is often defined by their mitotic activity, the presence of invasive borders and eventual lymphovascular invasion. Low-grade sarcomas represent the more frequent types, while benign endometrial stromal nodules (ESNs), which are non-invasive, are less common.

Composed of cells reminiscent of proliferative-phase endometrial stroma, ESNs are benign tumours, which classically arise and are confined to the uterus. Extra-uterine locations of these benign entities are rare but not exceptional with most cases originating in endometriotic foci. Thus, primary cases have been reported in the colon, the rectovaginal septum, and even implanted in the placenta of a newborn. Broad ligament involvement is much more exceptional and to date, there has not been any article that summarizes them.

We present an interesting and rare case of this benign entity occurring in the broad ligament of a pre-menopausal woman in the context of an absent background history of endometriosis. A brief review of the literature will be included.

136. PATHOLOGIC PROGNOSTIC FACTORS ON RESIDUAL DISEASE AFTER PREOPERATIVE CHEMORADIO THERAPY FOR RECTAL CANCER

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Background: To date, most studies evaluated the prognostic significance of pathological factors in rectal cancer patients treated with preoperative chemoradiotherapy (CRT) without consideration of pathologic complete remission. Then, prognostic value of analyzing proven pathological factors could be different in patients with residual disease after preoperative CRT. Therefore, robust pathological factors of residual disease will also need to be determined.

Aim: We aimed to establish robust histoprognostic predictors on residual rectal cancer after preoperative CRT.

Methods: Analyzing known histoprognostic factors in 146 patients with residual disease allows associations with patient outcome to be evaluated.

Results: The median follow-up time was 31.2 months, during which 52 patients (35.6%) experienced recurrence and 23 (15.8%) died of rectal cancer. On univariate analysis, tumor distance from anal verge, residual tumor size, ypT stage, ypN stage, ypTNM stage, downstage, tumor regression grade, lymphatic invasion, perineural invasion, venous invasion, and circumferential resection margin (CRM) were significantly associated with disease free survival (DFS) or/and rectal cancer-specific survival (RCSS). On multivariate analysis, higher ypTNM stage and CRM positivity were identified as independent prognostic factors for DFS (ypTNM stage: $p=0.024$, CRM positivity: $p<0.001$) and RCSS ($p=0.001$, $p=0.001$, respectively). Furthermore, CRM positivity was an independent predictor of reduced DFS, irrespective of subgrouping according to

downstage (non-downstage: $p=0.001$, downstage: $p=0.010$) or lymph node metastasis (non-metastasis: $p=0.004$, metastasis: $p=0.007$).

Conclusion: CRM status may be as powerful as ypTNM stage as a prognostic indicator for patient outcome in patients with residual rectal cancer after preoperative CRT.

137. DETECTION OF HER2/NEU GENE AMPLIFICATION BY FLUORESCENCE IN SITU HYBRIDIZATION TECHNIQUE

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Background: Breast cancer is rising and mostly occurring in females has showed high expression of HER-2/neu gene, a proto-oncogen is the significant factor in breast cancer.

Objective: To evaluate the specificity and significance of fluorescence *in situ* hybridization technique for HER-2/neu amplification before herceptin treatment.

Methods: The paraffin embedded, formalin fixed tissue samples of breast cancer collected from Histopathology Department of Dow Diagnostic Reference and Research Laboratory after the analysis with Immunohistochemistry technique were then forwarded to Molecular Department of Dow Diagnostic Reference and Research Laboratory to perform fluorescence *in situ* hybridization according to the manufacturer's instructions and a Path-Vysion HER2 DNA probe kit (Abbott).

Result: Total 25 samples of middle aged women (30–55 years) with ductal carcinoma were analyzed by FISH for HER-2/neu gene amplification by following the status of IHC. According to IHC the results showed 10% cases of 1+, 74% cases of 2+ and 16% cases of 3+. By FISH technique we identified 53% positive, 42% negative and 5% equivocal for HER-2/neu gene amplification. We figured that out of 2 cases of IHC (1+) 1 was HER-2 positive, 14 cases of IHC (2+) 8 were positive, 1 was equivocal, and out of 3 cases of IHC (3+) 1 was positive.

Conclusion: The gold standard for the diagnosis of HER-2/neu gene is FISH-based analysis from paraffin-embedded, formalin fixed tissue. While IHC analysis of HER2/neu gene is complicated because of the unstable staining and counting of insufficient cells. Hence, we cannot initiate the treatment of herceptin directly on the basis of IHC results. Therefore using fluorescence *in situ* hybridization (FISH) the results are more reliable and accurate.

138. OXYPHILIC VARIANT OF CLEAR CELL CARCINOMA OF THE OVARY: A CASE REPORT

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Introduction: Oxyphilic clear cell carcinoma of the ovary is a rare variant of clear cell carcinoma composed of polygonal cells with granular eosinophilic cytoplasm. First described in 1987, only rarely has it been reported in the literature. Diagnosis may