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HISTOPATHOLOGICAL GROWTH PATTERNS AS A GUIDE FOR ADJUVANT SYSTEMIC CHEMOTHERAPY IN PATIENTS WITH RESECTED COLORECTAL LIVER METASTASES

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Background. Despite negative trials adjuvant systemic chemotherapy is widely administered in patients with colorectal liver metastases (CRLM). Histopathological growth patterns (HGPs) are an independent prognostic factor in patients with CRLM. This study evaluates whether HGPs can predict the effectiveness of adjuvant systemic chemotherapy in patients with resected CRLM.
Material and methods. A multicenter cohort study, including patients from two centers, was conducted. Growth patterns were assessed according to the international concensus guidelines.
Results. In total, 816 consecutive patients were included in the study. Adjuvant systemic chemotherapy was administered in 173 patients (21%). Desmoplastic type HGP (dHGP) was associated with a superior overall survival (OS) of 87 months compared to 51 months in patients with non-desmoplastic type HGP (non-dHGP), p<0.001. Adjuvant systemic chemotherapy was associated with a superior median OS of 79 months (95%CI 61-97 months) compared to 56 months for patients who did not receive adjuvant systemic chemotherapy (p=0.02). In patients with dHGP, adjuvant systemic chemotherapy was not associated with an improved OS (HR 0.83, p=0.60). Among patients with non-dHGP, adjuvant systemic chemotherapy was associated with an improved OS (adjusted HR 0.66, p=0.004). In subgroup analysis, superior OS was observed only for patients with non-dHGP that did not receive preoperative chemotherapy (HR 0.51, p<0.001). No significant effect of adjuvant systemic chemotherapy was observed in patients after preoperative chemotherapy with either dHGP (HR 0.93, p=0.84) or non-dHGP (HR 0.93, p=0.68), or in patients with dHGP that were not pretreated (HR 2.50, p=0.07).
Conclusion. After complete resection of CRLM, adjuvant systemic chemotherapy is associated with improved OS in patients with non-dHGP tumors but not in patients with dHGP tumors.
Conflict of interest: No conflict of interest.

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THREE-DIMENSIONAL ULTRASONOGRAPHY OF THE BREAST; AN ADEQUATE REPLACEMENT FOR MRI IN NEOADJUVANT CHEMOTHERAPY TUMOUR RESPONSE EVALUATION? – RESPONDER TRIAL

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Background. Accurate measurement of tumour response during and after neoadjuvant chemotherapy (NAC) is important and may influence treatment decisions in invasive breast cancer patients. Breast MRI forms the gold standard but is more burdensome, time consuming and costly. In this study response measurement was done with 3-D ultrasound by Automated Breast Volume Scanner (ABVS) and compared to breast MRI. Moreover, patient satisfaction with both techniques was compared.
Methods and materials. A single-institution, prospective observational pilot study evaluating tumour response by ABVS in addition to breast MRI (standard care) was performed in 25 invasive breast cancer patients receiving NAC. Tumour response was evaluated comparing longest tumour diameters as well as tumour volumes at predefined time points using Bland-Altman analysis. Volume measurements for breast MRI were obtained using a fully immersive virtual reality system (a Barco I-Space) and V-Scope software. Same software was used to obtain ABVS volume measurements using an in-house developed desktop VR system. Inter- and intra-observer agreement was evaluated by Intraclass Correlation Coefficient (ICC).
Results. Twenty-five patients were eligible for baseline measurement, 20 for a mid-NAC response evaluation, and five for a post-NAC response evaluation. MRI and ABVS showed absolute concordance in 73% of patients for the mid-NAC evaluation, with a 'good' correlation for the difference in longest diameter measurement (ICC 0.73, p<0.01) as compared to baseline assessment. Concerning difference in volume measurement in the mid-NAC response evaluation showed a 'fair' correlation (ICC 0.52, p<0.01) and in the post-NAC response evaluation an 'excellent' correlation (ICC 0.98, p<0.01). 'Excellent' inter- and intra-observer agreement was found (ICC 0.88, p<0.01) with comparable limits of agreement (LOA) for observer 1 and 2 in both diameter and volume measurement. Patient satisfaction was higher for ABVS compared to breast MRI, 93% versus 12% respectively.
Conclusion. ABVS showed 'good' correlation with MRI tumour response evaluation in breast cancer patients during NAC with 'excellent' inter- and intra-observer agreement. ABVS has patients' preference over breast MRI and could be considered as alternative to breast MRI, in case results on an on-going prospective trial confirm these results (NTR6799).
Conflict of interest: No conflict of interest.

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PLEOMORPHIC LCIS WHAT DO WE KNOW? A UK MULTICENTER AUDIT OF PLEOMORPHIC LOBULAR CARCINOMA IN SITU

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Background: Pleomorphic lobular carcinoma in situ (PLCIS) is a relatively newly described pathological lesion that is distinguished from classical LCIS (cLCIS) by its large pleomorphic nuclei. The lesion is uncommon and its appropriate management has been debated. The aim of this study is to review data from a large series of PLCIS to examine its natural history in order to guide management plans.
Materials and Methods: Comprehensive pathology data were collected from two cohorts; one from a UK multicentre audit and the other a series of PLCIS cases identified from within the GLACIER study cohort. 179 cases were identified of whom 176 had enough data for analysis making this the largest cohort in the literature.
Results: The mean age of all the 176 cases was 53 (34-94) years. When excluding the GLACIER patients because of the age limits for recruitment (all below 60 years), the mean age increased to 60. Of the 176 cases that had surgery, 133 had unifocal disease while 43 had evidence of multifocality. Pure non-invasive disease was seen in 47 patients. 14 patients had pure PLCIS, 20 had a mixture of PLCIS and cLCIS while concurrent PLCIS and DCIS was seen in 13. Invasive disease was seen in 130 patients, whilst 2 had microinvasive disease (<1mm).
Out of the 130 that had invasive disease 117 (90.0 %) had a subtype of invasive lobular malignancy, either as the only invasive component or admixed with other types. 43 (33.1%) classical invasive lobular carcinoma