and Her2. So, we distingue in this group the basal-like suptype (ER−, PR−, Her2−, cytokeratin (CK) 5/6+ and/or Her1+) and unclassified subtype (ER−, PR−, Her2−, Her1− and CK5/6−).

The aim of this study is to determine the clinicopathological, histological, therapeutic and prognostic features associated with this type of breast cancer.

Material and Methods: This is a retrospective study of 366 Breast cancer females diagnosed between January 2007 to June 2010 at the Department of pathology. Epidemiological, clinical, histological, therapeutic and evolutive data were analyzed: the histological grade is determined and based on the Scarff-Bloom-Richardson grading system (SBR). For Her2, immunohistochemical was carried out using with HercepTest, All Her2 score 2+ cases were analysed by FISH.

OS and DFS rates were estimated by Kaplan–Meier analysis and a log-rank test to estimate outcome.

Results: 17.5% of all breast cancer women (64 women) were identified TNBC, 12.6% were basal-like, 4.9% were unclassified subtype. The median age is young (45 years) and the median tumour size is high (4.3 cm).

TNBC were associated most often with a high grade; 49.2% grade III (53% for unclassified subtype, 47.6% for basal-like). Vascular invasion was found in 26.6% of cases (22% for unclassified subtype and 28.3% for basal-like subtype). For the lymph node involvement: 51% had positive lymph nodes, and 22.4% had distant metastases. For the AJCC staging, 17.2% were classified stage I, 20.7% stage IIA, 13.8% stage IIB, 10.3% stage IIIA, 15.5% stage IIIB, and 22.4% were stage IV. For treatment modalities, we have 94% of TNBC underwent surgery. Although, neoadjuvant chemotherapy was administered to 18% patients with 6% of complete pathologic response and adjuvant chemotherapy to 82%. 98% received anthracycline based regimen and only 30% received taxanes.

The Kaplan–Meier curves based showed the lowest survival probability (49% of OS, and 39% at the 3-years DFS).

Conclusion: TNBC is associated with young age, high grade tumours, advanced stage at diagnosis, important lymph node involvement, and distant metastases. Critical to optimal future management are accurate identification of truly triple negative disease and adequately powered prospective TNBC trials to establish treatment efficacy and define predictive biomarkers.

5100   POSTER
Relationship Between Survival, Hormone Receptor Rate, and Ca 15−3 Serum Levels in Patients With Isolated Liver Metastases From Breast Cancer

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Background: Breast cancer (BC) is the is the most common cancer in women, and the liver is one of the site of distant metastases, accounting for about 15% of patients with BC. Isolated liver metastases (LMs) are uncommon, and the presence of extra-hepatic disease usually represents a contraindication to liver resection. Liver metastasis of BC origin is usually life limiting, and the patient needs treatment. Surgical resection of parts of the liver is considered the only potentially curative therapy, but unfortunately only few patients are suitable for liver resection. The 5-year survival of patients with LMs from colorectal cancer ranges from 20% to 25%, while the survival period after resection to manage LMs from BC is unclear, due to the limited number of studies, ranging between 36−42 months. The aims of this study were (1) to identify factors predictive of survival of women with LMs from BC who underwent liver resection, and (2) to evaluate the relationship between survival, age, primitive tumour size, number of LM, serum carbohydrate antigen (CA) 15−3, estrogen receptor (ER) and progesterone receptor (PR) rate.

Patients and Methods: Medical reports of a group of 11 women (median age 57 years, range 39−67 years) with LM and no evidence of extra-hepatic disease who had undergone curative surgery for BC were reviewed retrospectively. All patients received 6−12 cycles of neoadjuvant chemotherapy (anthracyclines) alone or chemotherapy plus hormone therapy (tamoxifen or aromatase inhibitors) prior to liver resection (wedge resection or segmentectomy), and those with disease progression were excluded. The following parameters were recorded: age of the patients, size (maximum diameter measured by the pathologist) and number of the LMs, size of the primitive tumour, preoperative CA 15−3 serum levels, ER and PR rate.

Results: All LMs were metachronous, 7 patients had a single LM, 3 had two LMs, and 1 had three LMS. The baseline data were: size of the primitive BC = 25.8 ± 6.4 mm, number of LMs = 1.4 ± 0.68, ER = $6.6 \pm 33.8\%$, PR = $48.3 \pm 34.2\%$, CA 15-3 = 84.7 ± 33.1 U/mL. The median survival rate was 32 months (range 12−77 months). There was a significant correlation between ER and both PR (R = 0.95, p < 0.001) and CA 15-3 (R = 0.64, p = 0.034), and between CA 15-3 and both PR (R = 0.67, p = 0.024) and number of LMs (R = 0.69, p = 0.017). At univariate analysis younger age, number of LMS, and size of the primitive tumour were associated with poorer prognosis, while at multivariate analysis only the age (R = 0.81, p = 0.002) of the patients was an independent factor of survival.

Conclusions: The survival of patients with BC and LMs is independent of hormone-receptor status and serum CA 15-3 levels at the time of liver resection.

Poster Presentations (Sun, 25 Sep, 14:00−16:30)
Breast Cancer − Early Disease

5101   POSTER
86 Cases of Early-onset Breast Cancer in Hungary − Retrospective Analysis of Immunohistochemistry (IHC) and Family-history Data − Assessing the Risk of Carrying BRCA1 and BRCA2 Mutation

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Background: It has long been debated whether breast cancer diagnosed at a young age is a clinically and etiologically distinct disease from breast cancer diagnosed later in life.

The aim of the present study was to retrospectively investigate clinicopathological characteristics and prognosis, as well as to assess the probability of carrying BRCA mutations in our group of young breast cancer patients.

Material and Methods: We invasion women diagnosed with invasive breast carcinoma younger than/or at the age of 35 years. Between 2000–2009 eighty-six (86) cases were selected from the files of the 2nd Department of Pathology, Semmelweis University.

Family history, clinicopathological and follow-up data were analyzed. BRCAPRO software analyses were performed to assess the probability of BRCA1 and BRCA2 mutations.

The tissue specimens were reviewed for histological type, nuclear/histological grade, tumour size, lymph node status, estrogen receptor (ER), progesterone receptor status (PR), Ki67, p53, HER2 and CK5/6.

Results: The mean age in the study group was 31.49 years at the time of diagnosis. Analyzing the family history in 41 cases 54 malignant tumours, mainly breast carcinomas (48%) were recorded. In the two most affected families 5−5 malignancies were found in each family. Based on the IHC results we grouped the examined tumours according to the four main molecular subtypes. Out of 81 patients, 37.05% were luminal A; 16.05% luminal B; 28.4% triple negative; and 18.5% HER2.

Evaluating the results of the BRCAPRO software we found higher than 10% of carrier probability in 14 cases (32.56%) regarding BRCA1 and in 2 cases (4.65%) concerning the BRCA2 gene. From the data provided we got to know that 24 of our 86 patients died already.

Conclusions: Despite the relatively short period of follow-up, more than one-fourth of our patients have already died, and there were a large amount of malignancies among the families involved.

According to our results luminal A and triple-negative subtype was the most common breast cancer subtype in this group of young patients. Carrier probabilities determined by BRCAPRO raised the necessity of the detection of the mutations of BRCA genes among the examined cases.

Sequencing the 5 most common BRCA1 and BRCA2 mutations occurring in Hungary is under progress in our study group.

5102   POSTER
Gene Expression Patterns in Canine Mammary Osteosarcomas Versus Osteosarcomas of the Head and Trunk

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Background: Tumours in the breasts or mammary glands affect women, dogs, cats and rodents. In addition to the frequent carcinomas there are other types, such as sarcomas that by definition originate from mesenchymal tissues. Breast sarcomas usually appear as fibrosarcomas and osteosarcomas and, to the best of our knowledge, only in humans and dogs. However, the origin of mammary sarcomas is not fully