28 patients (32%); intermediate (risk factor=1), 50 patients (56%); poor (risk factor=2), 11 patients (12%). Median T-OS of good, intermediate and poor prognosis group was not-reached (more than 59.7), 29.7 and 15.3 months, respectively ($p < 0.001$).

Conclusion: Prognosis grouping based upon the prognostic factors might be useful to predict outcomes of patients with HO-MBC treated with trastuzumab containing chemotherapy.

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Phase II study of S-1 in combination with irinotecan (CPT-11) for patients with advanced/recurrent breast cancer (KSCOG-BC01)

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Background: Irinotecan and S-1 have been shown to be effective in patients with advanced/recurrent breast cancer and they have a considerable single-agent activity, respectively. We evaluated the combination of irinotecan (CPT-11) and S-1 as first-line chemotherapy for advanced or recurrent breast cancer (BC).

Methods: All patients with histologically confirmed BC with unresectable or metastatic diseases, measurable lesions, PS 0−2, age between 18 and 80, and no contraindication to chemotherapy were eligible in this study. Prior adjuvant chemotherapy finished at least 6 months before enrollment was allowed. Treatment included S-1 80 mg/m^2 p.o. twice daily on days 3 to 7, 10 to 14, and 17 to 21 and CPT-11 60 mg/m^2 i.v. on day 1, 8, 15 with a 1-week interval until disease progression or unacceptable toxicities. Both recommended doses of S-1 and CPT-11 was based on our previous Phase I study.

Results: Between May 2007 and August 2009, total 16 pts were enrolled in this study. The median age was 56.5 years (range, 38−73). Nine pts had recurrent disease after previous curative mastectomy and 7 had previous adjuvant chemotherapy. After a median 3 (range, 1−9) cycles of chemotherapy, 16 pts were evaluable for toxicity and 9 pts for response. The overall response rate was 33.3%, including 0 CR, 3 PRs, 4 SDs, and 2 PDs. The clinical benefit rate was 77.8%. Commonly observed grade 3/4 adverse events were neutropenia (12.5% of patients), diarrhea (12.5%). There was no neutropenic fever or treatment-related death.

Conclusions: The combination of CPT-11 and S-1 appear to have well efficacy, manageable toxicity and is well tolerated in patients with advanced/recurrent BC. Further studies of this combination are still ongoing.

495 Poster

Clinical and pathological prognostic characteristic of breast cancer patients with brain metastases

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Improvement in breast cancer patient's treatment leads to life prolongation. This is connected with rising incidence of brain metastases (BM) which occurs in up to one third of patients with metastatic breast cancer. The aim of this study is to analyze clinical and pathological factors in patients with BM. This is a retrospective review of 177 breast cancer patients treated with brain radiotherapy between 2005–2007 at two Cancer Centers in Gliwice and Krakow.

Patient's age at the time of diagnosis was 50 years (28−80). Patient's stages at the time of cancer diagnosis were: T_{1-2} 42% T_{3-4} 37%, N_{0-1} 56%, N_{2-3} 23%. Majority were treated with radical intent 81%, 19% were treated palliatively. 79% were treated with chemotherapy, 36% with hormonal therapy, 44% of patients underwent loco-regional radiotherapy treatment. Pathological reports showed that lymph nodes metastases were not present only in 28%. Tumours were ER, PR receptor positive only in 34% and 26%, and only in 10% for ER and 12% for PR were highly positive. In 36% HER2 was negative, high expression or amplification was in 36%. All brain metastases were treated with radiotherapy, 20% metastasectomy, 25% stereotactic irradiation, in combination with WBRT 19% or alone 6%.

Median time from diagnosis to BM was 2.74 years (range 0−19). Single BM were in 29%, multiple metastases in 30%, remaining had 2−7 lesions. First metastatic site was brain in 41%. Median time from treatment dissemination to brain relapse was 0.1 years (range 0−9.2). In patients treated with radical intent, median time to BM was longer in ER+ 4.5 years vs ER− 2.9. ($p = 0.1$) and in PR+ 4.7 years vs PR− 2.7 ($p = 0.04$). Median time to BM was longer in HER2− 3.2 years vs HER2+ 2.5 years (NS). There was trend towards shorter time to BM in triple negative receptor status in comparison to others ($p = 0.09$). Higher node ratio was a significant risk factor for faster BM ($p = 0.04$). A median time to BM significantly shortened with T stage and was 4.5, 3.4, 2.7 and 1.5 years for T_1-T_4 respectively and also shortened with N stage and was 4.0, 3.0, 1.5 and 1.0 for N_0-N_3, differences were statistically significant ($p < 0.001$). There was no difference in overall survival between patients, whose primary metastatic site was brain or other localization. Increased number of brain metastases had inverse effect on survival, patient's with single BM had a significantly higher 5-year overall survival (75%) in comparison with multiple BM (35%), ($p = 0.03$). Also time from brain metastases to death was longer in single BM ($p < 0.0001$).

Advanced stages of the disease, ER-, PR-, HER2+ are related to higher risk of faster BM. Higher number of BM is related to shorter survival. Major cause of death was brain metastases, therefore further studies are needed for early BM patient's selection.

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RIBBON-1: efficacy of capecitabine-bevacizumab in patients with triple-negative metastatic breast cancer (MBC)

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Background: The RIBBON-1 phase-III study of bevacizumab (A) or placebo was performed in two independently powered cohorts, with patients also receiving capecitabine (X) or taxane/anthracycline. Progression-free survival (PFS; the primary endpoint) was significantly greater with A combined with chemotherapy in both cohorts. The prognosis for patients with ER/PgR/HER2 triple-negative breast cancer is particularly poor. Here we present analysis outcomes from the X cohort of the RIBBON-1 study for patients with triple-negative MBC.

Methods: Recruitment to RIBBON-1 was open to patients with previously untreated, HER2-negative locally recurrent or MBC, with ECOG PS 0 or 1 and no known CNS metastases. In the X cohort, women were randomised (2:1) to X 1,000 mg/m^2 b.i.d. with placebo, or X with A 15 mg/kg q3w, with stratification by disease-free interval ($\leqslant$12 or >12 months), prior adjuvant chemotherapy (yes or no), and number of metastatic sites (<3 or $\geqslant$3). PFS outcomes were analysed in patients with or without triple-negative disease.

Results: The X cohort of RIBBON-1 enrolled 615 patients (XA 409; X-placebo control: 206). Approximately 24% of patients had ER/PgR/HER2 triple-negative disease (XA 21.7%; control 25.3%). In the X cohort overall, a significantly greater improvement in investigator-assessed PFS was achieved with the XA combination (stratified analysis hazard ratio [HR] 0.69 [0.56–0.84], $p = 0.0002$; median PFS 8.6 [XA] vs 5.7 [control] months). In the subgroup of patients with triple-negative disease, PFS appears to be similarly extended with XA (HR 0.72 [0.49–1.06]; 6.1 vs 4.2 months).

Conclusions: MBC patients with triple-negative disease have a poor prognosis and represent a difficult-to-treat population with relatively few therapeutic options. This analysis suggests that the XA combination increases PFS, and so may represent an effective option in this patient group.

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Possible predictive role of prior endocrine therapy on fulvestrant treatment outcome

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Background: Fulvestrant (F) is an estrogen receptor antagonist with no agonist effects that is licensed for the treatment of postmenopausal women with hormone-sensitive metastatic breast cancer (MBC). F use in pretreated MBC patients (pts) is associated with variable response rates. We investigated possible predictive role of treatment delivered prior to fulvestrant.

Material and Methods: From March 2005 to March 2009 124 MBC pts were treated with F at Institute of Oncology Ljubljana, 120 pts were evaluable. The median age of pts was 63 years (range 42−92), median ECOG performance status was 1 (range 0−3). All pts were pre-treated with other endocrine therapy (ET) (including adjuvant), median number of prior ET was 3 (range 1−4): 6/120 (5%) received 1, 52/120 (43.3%) 2 lines, 52/120 (43.3) 3 lines and 10/120 (8.3%) 4 lines of prior ET. The median number of chemotherapy (CT) regimens (including adjuvant)

received prior to F was 1 (range 0−4) and 21/120 (17.5%) pts were CT naïve. The treatments before initiation of F were as follows: tamoxifen in 19 pts (group T → F), aromatase inhibitors in 65 pts (group AI → F), chemotherapy in 29 pts (group CT → F) and megestrol acetate in 7 pts. F was given until disease progression. Clinical benefit (CB) was defined as complete response (CR) + partial response (PR) + stable disease (SD) ⩾6 months (mo). Time to progression (TTP) and overall survival (OS) was measured from the date of first dose of F to the recorded date of progression disease for TTP and death for OS. Survival analyses were done according to the univariate Kaplan-Meier method.

Results: Median follow-up was 28.7 mo (range 2.4−50) and median duration of treatment with F was 4 mo (range 1−20). One patient (0.8%) had a CR, 10 (8.1%) a PR, 43 other (35.8%) experienced SD. The median time to progression (TTP) was 4.6 mo (range 1–34.4) and the median overall survival was 19.8 mo (range 2.4−50). In those 54 patients who experienced CB the median TTP was 9.9 mo (range 6–45.5) and median overall survival was 30.5 mo (range 6−45.5).

The median TTP regarding to previous treatments were 3.4 mo in T → F, 5 mo in AI → F and 3.7 mo in CT → F group. The differences were not statistically significant. Median OS were 12.9 mo in T → F, 24.3 mo in AI → F and 19.8 mo in CT → F group. The difference between T → F and AI → F was borderline statistically significant (p = 0.089).

Conclusion: ET with tamoxifen just prior to treatment with F seems to predict worse treatment outcome with F.

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Clinical outcome of Turkish metastatic breast cancer patients with currently available treatment modalities. Single center experience

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Background: Breast cancer is the most common malignancy and the second leading cause of cancer-related death among women in the developed countries. Despite advances in screening, improved local therapies and adjuvant systemic treatments median survival of metastatic breast cancer (MBC) patients is in the range of 2−3 years at most.

Method: We rewieved the medical records of MBC patients who had been treated in our institution between 1999–2009 and analyzed their clinicopathological features and survival outcomes retrospectively.

Results: A hundred and sixty patients were included in this study. Median age was 47 (23−82), median follow up was 24 (2–186) months. At the time of diagnosis 59% of patients were under the age of 50 and 46% were postmenauposal. Majority of the patients (37%) had multiple sites of metastases, 28% had only bone metastasis, 25% had visceral metastasis. Among those patients with only visceral metastasis, majority had lung (37.5%) and liver (37.5%) metastasis. Forty percent of patients received endocrine therapy and 40% of patients received chemotherapy as first line metastatic treatment. Thirty (20%) patients have been treated with molecularly targeted therapies like trastuzumab, lapatinib and sunitinib, frequently combined with one of the chemotherapy agents. Five-year overall survival (OS) was 32% and median OS was 38 months for the whole group. Five year progression free survival (PFS) was 10% and median PFS was 10 months. Menauposal status, hormone receptors and disease free interval (⩽24 months or >24 months) had significant impact on overall survival in the multivariate analysis (p:0.018, p:0.018 and p:0.003 respectively).

Conclusion: All our patients have been treated with the modern oncologic systemic/local therapies recommended by the international guidelines in our center. Arrangements in recommended therapy based on patient characteristics have always been considered. Given our data MBC patients live up to 3−4 years, indicating that further improvement beyond that requires development of new treatment modalities. Given our data the survival of MBC patients has reached a plateau. Our data show the survival outcome of the whole group and the subgroups receiving only chemotherapy or endocrine therapy or targeted systemic therapies were consistent with the data reported in the literature.

Friday, 26 March 2010 18:15–19:15

POSTER SESSION

Epidemiology, management care and pregnancy

499 Poster discussion

Breast cancer during pregnancy − a prospective and retrospective European registry (GBG-20/BIG02-03)

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Background: In the treatment of the pregnant breast cancer patients, the evidence upon which we base our decisions has been largely limited to case reports, case–control studies and retrospective cohorts. Therefore, the German Breast Group has launched a registry (GBG-29/BIG 02−03) for patients with breast cancer that has been diagnosed during pregnancy.

Material: Every pregnant breast cancer patient is eligible. The primary endpoint is the fetal outcome 4 weeks after delivery. Secondary endpoints are maternal outcome of pregnancy, stage and biological characteristics of breast cancer, breast cancer therapy (treatment, response to chemotherapy, type of surgery), sensitivity and specificity of diagnostic procedures, outcome of the newborn after 5 years, outcome of breast cancer 5 years after diagnosis.

Results: From April 2003-October 2009, 235 patients have been prospectively (n = 119) and retrospectively (n = 116) registered. The median age is 33 years (range 23−46). T1−2: 76%; T3−4: 24%; N+ 58%; ductal invasive 84%, inflammatory 5.3%, grade 3: 71%, ER/PR neg 50%; Her-2 pos: 41.6%. At the time of diagnosis the median gestational age is 23 weeks; 23.8% of all patients have been diagnosed during the 1st, 39.5% during the 2nd and 36.8% during the 3rd trimester. Overall 30% received neoadjuvant chemotherapy (CHT). 91/151 patients received CHT during pregnancy with a median of 2 cycles. CHT regimen used during pregnancy are: EC/AC n = 52, A/E/C mono n = 11; CMF n = 11, FEC n = 15, taxane n = 1. The median gestational time of delivery was 36 weeks (range 28−42). Mean weight for those with intrauterine CHT was 2636 mg (1260–3885) compared to 2791 mg (1560–4259 mg) for those not exposed to CHT. The median length was 48 cm (39−55 cm). 31 babies were discharged from hospital later than the mother; of those 13 were born before 35th week of gestation. Of the 91 babies exposed to systemic therapy 3 had alopecia, 1 was small for gestational age, 1 had trisomia 18 and died one week after birth, 1 had necrotic enterocolitis and died 3 weeks after birth, 1 developed sepsis, 1 neutropenia, and 2 anaemia. The group without CHT during pregnancy reported 1 temporary apnoea; 1 increase of C reactive protein and 1 gastroenteritis.

Conclusion: Fetal outcome in babies, who received intrauterine chemotherapy was not significantly different from those who did not. Pregnant breast cancer patients can be treated as close as possible to standard recommendations in specialized multidisciplinary teams.