response rate of the patients with 3435T-2677T, 3435T-1236T or 3435T-2677T-1236T haplotypes was lower than that of the patients with the other corresponding haplotypes ($P = 0.018$, 0.011 and 0.019, respectively), too. Noticeably, the patients with both the adverse genotypes of *GSTP1* 314AA and *MDR* 3435TT shown the worst treatment efficacy in all (14.3%; $\chi^2=26.33$, $P = 0.000$).
Conclusion: Polymorphisms in *GSTs* and *MDR1* genes may help to predict anthracyclines response, but further validation is required. These results provide support for a polygenic pathway approach for assessing the predictive potential of polymorphisms in treatment outcome.

5079 POSTER

The Substantiation of Optimal Approaches to Systemic Treatment for Patients With Metastatic Breast Cancer

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Breast cancer is one of the most common malignancies in the US and Europe. Our work is directed on the decision of actual clinical problem in oncology. The investigation aimed to improve the results of systemic treatment for patients with metastatic breast cancer. It is reached via consideration of optimal chemotherapy duration, elaboration of indications and contra-indications for continuation or termination based on defining factors, which influence on total and recurrence-free patients' survival.
Patients and Methods: 128 women with histologically confirmed metastatic breast cancer, received monotherapy with Paclitaxel 80 mg/m^2 weekly. Patients (Pts.) were divided for 2 groups. First group consists of 61 pts. received chemotherapy during 24 weeks. Second group included 67 Pts. received chemotherapy without limitation term of treatment.
Results: Treatment of patients on the stage of 24 weeks were identical in both groups and corresponded to the known international data. Continuation of treatment from 24 to 48 weeks improved the results of of tumour response on 27.5%. Thus treatment appeared most optimal duration 40 weeks.
The following results in both groups have been found. The patients with liver and lymph nodes lesions who have stable disease response at week 24 should stop the treatment. If the response is partial the treatment may be prolonged up to 32 weeks. If the partial response grows and preserves at week 32 the treatment may be prolonged till week 40 and must be stopped. If the partial response does not grow 32 week term of treatment is sufficient. The patients with breast cancer with liver or liver and lung localized metastases who have objective treatment response are recommended to be treated up to 48 weeks (if possible). Only if the partial response growth is preserved after 48 weeks at the last control time interval uninterrupted treatment may benefit. If the partial response is stable the treatment may be terminated.
Conclusions: Taking into account the substantial differences of efficiency depending on duration of chemotherapy, necessary selection of patients for it's continuation. Testimonies to continuation of treatment were the next: presence of metastases in a liver maintenance of partial tumour response on treatment and it's increase for the last controlled interval of time.

5080 POSTER

Association Between Some Markers (β-Tubulin III, Tau-1, BRCA-1, DPD, TP, TS) and Treatment Response in Patients With Advanced Breast Cancer

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Background: The main purpose of our study was to find substitute predictive markers for treatment response in women with advanced breast cancer.
Materials and Methods: 39 patients with advanced breast cancer, treated in the St. Petersburg Research Institute of Oncology between 2007 and 2009 were included in this trial. 20 patients received docetaxel 75 mg/m^2 .i.v. once every three weeks and 19 patients were treated with capecitabine 2500 mg/m^2 per os. We compared the expression of BRCA-1, β-tubulin, and tau-1 in the 20 patients treated by docetaxel between those with a good overal response (stable and partial) and patients with a progression of disease. In the group including 19 patients we compared the expression of DPD, TP and TS between the same response subgroups.
Results: A low expression of BRCA-1, β-tubulin, and tau-1 in patients receiving docetaxel correlated with a worse response. Among the patients receiving capecitabine a low expression of DPD, TP, and TS correlated with a good response.
Conclusion: These results demonstrate that BRCA-1, β-tubulin and tau-1 may be substitute markers for patients receiving docetaxel. DPD, TP and TS may be markers among patients receiving capecitabine.

5081 POSTER

ABO and Rh Blood Groups Frequency in Women With HER2(+) Breast Cancer

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Background: The role of genetic factors in the development of cancer is widely accepted. In 1953 Aird et al. reported a relation between blood group A and cancer of the stomach. Recently the relation between pancreatic cancer and ABO blood group has been described. It is well known that genetic factors (e.g. BRCA1/2) are involved in the etiology of some cases of familial breast cancer. ABO blood group genes are mapped at the chromosome 9q, in which the genetic alteration is common in many cancers. Individualized current therapeutic strategies for patients with primary breast cancer are frequently determined by the size of the primary tumour, axillary lymph node status, and pathologic stage of disease, status of estrogen receptor and progesterone receptor activity and HER2 over expression. In some previous studies, investigators have recognized ABO blood group as a predisposing or prognostic factor in breast cancer. The aim of this study is to investigate the presence of a possible association between HER2(+) breast cancer in Turkish women and ABO blood groups and Rh factor.
Material and Methods: In 294 female patients with HER2(+) breast cancer, blood group and Rh factor were examined. the relationship of blood groups with age, menopausal status, family history of cancer, ER, PR and HER2 status were evaluated and compared with the healthy volunteer donors control group of 22,821 people which admitted to Ankara University Medical School Blood Center at 2010.
Results: Information on ABO blood type and Rh factor were available for 294 patients. The median age was 47 (range: 20−80) and 56% of patients were at premenopausal period. Estrogen and progesterone receptor were positive 50% and 60% respectively. Overall, the ABO blood group distribution of the 294 HER2(+) breast cancer patients was similar to that of the Turkish general population. There wasn't statistically significant difference ($p = 0.36$) between groups (see Table 1). Also blood type and ER, PR and menopausal status was not correlated. However, patients with blood group A and 0 Rh(+) had higher family history of cancer ($p = 0.04$).
Conclusion: In the present study we didn't find any relationship between HER2 status and ABO blood group and Rh factor. However further studies with larger number of patients are needed to establish the role of blood groups as a prognostic factor in patient with breast cancer.

Table 1: The blood group distribution of patients and control group

Blood group	Number of subjects			
	HER2(+) patients		Controls	
	n	%	n	%
A Rh(+)	135	45.8	8795	38.54
A Rh(−)	10	3.4	1130	4.95
B Rh(+)	37	12.6	3185	13.96
B Rh(−)	5	1.7	425	1.86
AB Rh(+)	19	6.5	1581	6.93
AB Rh(−)	2	0.7	205	0.90
0 Rh(+)	77	26.2	6550	28.70
0 Rh(−)	9	3.1	950	4.16
Total	294	100	22821	100

5082 POSTER

Identification of Protein Markers Predicting Chemotherapy Resistance in Breast Cancer

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Background: Metastasis and subsequent resistance to therapy is a major cause of death in patients with breast cancer. Although a large number