investigate the effect of tropisetron for the prevention of nausea and vomiting induced by upper or whole abdominal irradiation.

**Materials and Methods:** From December 1997 to April 1999, 74 patients were enrolled in a randomized study comparing the antiemetic effect of tropisetron vs. metoclopramide during the upper or whole abdominal irradiation. Sixty-six patients were evaluable. Patients diagnosed with gyneaco-gastrointestinal, urolologic malignant tumors or lymphomas and treated with irradiation only were included in the study. All patients were treated with either whole abdominal irradiation (120-120 cGy daily) or upper abdominal irradiation (150-180 cGy daily) according to the location of primary tumor. Patients were randomized to the Tropisetron 5 mg once daily (35 cases) or Metoclopramide 10 mg. i.d. (31 cases) for antiemetic therapy on seven days per week throughout the whole radiation treatment (15-42 days). The main efficacy parameter was the occurrence, the number and the severity of nausea and vomiting. Total control was defined as no vomiting or nausea in the efficacy period.

**Results:** Total control of acute emesis was obtained in 75% and 87% of patients receiving tropisetron compared to 50% and 62% of patients receiving metoclopramide in the first and second weeks of irradiation respectively (p=0.037 and p=0.026). However, there was no difference in occurrence of neurotoxicity after application of amifostin.

**Materials and Methods:** We’ve included 34 pts. with a ACRC. The median age was 60 years. Karnofsky status was 90%. In Ann A chemotherapy with L-CHP, FA, 5-FU has a high activity by advanced colorectal cancer (ACRC). The main dose limiting toxicity of a chemotherapy with L-OHP is an peripheral sensory neuropathy. In this study become the patients (pts.) a chemotherapy with L-OHP, FA and 5-FU with or without amifostin. The question was the reduction of side effects treatments under application of amifostin.

**Results:** The Amifostin-group showed a significant reduction of peripheral neurotoxicity (p=0.048). In the amifostin group occur leukopenia in 1,5% of all cycles and in the controlgroup in 9,8%. Thrombopenia was observed in the controlgroup in 4 pts. and in null in pts. in the Amifostin-group. Side effects like nausea, mucositis and diarrhoea showed not differences. The tumourresponse is not comparable, because of different the distribution of first-, second- and third-line therapy in both groups.

**Conclusion:** It seems that side effects under chemotherapy including neurotoxic side effects are less severe in chemotherapy with L-OHP, FA-FU and amifostin.

**1348 POSTER**

Randomised trial with or without amifostin to reduce neurotoxic side effects under chemotherapy with oxaliplatin (L-OHP), FA-FU (FolfiX 3)

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**Aim of the study:** The chemotherapy with L-OHP, FA, 5-FU has a high activity by advanced colorectal cancer (ACRC). The main dose limiting toxicity of a chemotherapy with L-OHP is an peripheral sensory neuropathy. In this study become the patients (pts.) a chemotherapy with L-OHP, FA and 5-FU with or without amifostin. The question was the reduction of side effects treatments under application of amifostin.

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**Conclusion:** It seems that side effects under chemotherapy including neurotoxic side effects are less severe in chemotherapy with L-OHP, FA-FU and amifostin.

**Poster Sessions**

1350 POSTER

**Poster Sessions**

Using 'In silico mouse' for predicting therapeutic protocols on thrombopoiesis

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**Background:** Thrombocytopenia is a common hazardous blood condition appearing in different clinical situations, including cancer chemotherapy. A thrombopoiesis-controlling cytokine, thrombopoietin (TPO) shows dramatically increased blood platelet counts, thus improving a patients' ability to withstand chemotherapy.

**Aims:** To develop an efficient method for predicting the effects of different drug treatments on murine thrombopoiesis and, in particular, for suggesting improved TPO protocols.

**Method:** We simulated TPO and cytotoxic drugs effects on murine thrombopoiesis, by translating the driving biological, pharmacological and clinical interactions into an elaborate mathematical and computation system. The result is an 'In silico Murine Bone Marrow tool', which predicts diverse treatment effects on murine thrombopoiesis. The tool was evaluated by its ability to retrieve published data from murine experiments involving TPO administration. After verification the tool can be used for the design of improved therapeutic protocols.

**Results:** The 'In silico Murine Bone Marrow tool' was quick and efficient in retrieving diverse published results involving different TPO protocols. When presented with previously untested protocols, the tool yields elaborate results that are biologically and medically sound. The different thrombopoietic lineage cell counts, as well as the TPO concentrations are graphically and numerically presented in various time resolutions, and platelet counts decrease/increase below/above relevant medical thresholds (e.g. thrombocytopenia, thrombocytosis, transfusion indicating levels etc.), these can be alerted on-line during the simulation. When used to explore optimal protocols, the tool yields protocols that are improved in clinical outcome and/or more efficient in their use of TPO.

**Conclusions:** The 'In silico Murine bone marrow tool' can be used to retrieve experimental results and to plan better TPO protocols. In another work we develop an 'In silico human bone marrow tool' which has already been verified retrospectively. Using such 'In Silico' methods at the research level, may accelerate the design of effective treatment protocols, thus reducing the number of experiments, and of patients and laboratory animals that are subject to potential hazards, and hence bring the cost-reducing advantages and time-reduction of clinical trials undertaken by pharmaceutical companies.