Conclusions: R0 surgery still represent the milestone of treatment for primary desmoids no matter where the tumour is localized. This is particularly important for huge tumours, where an higher incidence of recurrence is expected.

1442 POSTER

Mina53, a Target Gene of C-Myc, is a Favorable Prognostic Marker in Early Stage Lung Cancer

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Background: Mina53, a novel target gene of c-Myc, is overexpressed in various malignancies. Overexpression of Mina53 has been associated with poor prognosis in esophageal cancer, renal cell carcinoma, and neuroblastoma. We previously demonstrated that Mina53 is overexpressed in lung cancer patients from the early clinical stages. In addition, the enforced expression of Mina53 in NIH/3T3 cells, a mouse fibroblast cell line, induces cell transformation, and Mina53 transfected NIH/3T3 clones produce tumours in nude mice. In this study, we examined the association between disease prognosis and Mina53 expression in lung cancer patients.
Materials and Methods: Mina53 expression was determined by immunohistochemistry and western blotting using lung cancer cell lines and lung cancer tissues. The survival rate was calculated according to the Kaplan–Meier method and the logrank test was used for assessing differences. Biological effects of Mina53 were evaluated by cell proliferation assay, cell cycle analysis, apoptosis assay, and *in vitro* cell invasion assay using Mina53 transfected A549 and H226B cells.
Results: Patients with negative staining for Mina53 had significantly shorter survival than patients with positive staining for Mina53, especially in stage I or with squamous cell carcinoma. We hypothesized that Mina53 exerts different effects according to cancer cell type, inhibiting tumour progression in lung cancer cells. Growth of A549 transfected with pCAGGS/*mina53* (expression plasmid) was inhibited. After transfection of pCAGGS/*mina53* into A549, pre-G0/G1 phase cells increased in a time-dependent manner. In addition, early apoptotic cells were more frequently observed among cells transfected with pCAGGS/*mina53* than those with pCAGGS. Because cell growth inhibition associated with apoptosis was not observed in H226B, we examined the possibility of an effect of Mina53 on cancer cell invasion. The number of invading cells transfected with pCAGGS/*mina53* significantly decreased compared with those with pCAGGS, whereas transfection with *mina53* shRNA increased the number of invading cells.
Conclusions: Mina53 could be a possible favorable prognostic marker, especially in squamous cell carcinoma. Considering the results of biological effects of Mina53, is may play a role on inhibition of cancer progression.

1443 POSTER

High Blood Neutrophil-to-lymphocyte Ratio as an Indicator of Poor Prognosis in Advanced Non Small Cell Lung Cancer

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Background: The neutrophil-to-lymphocyte ratio (NLR) is an index of inflammatory status and in malignant tumours an elevated NLR has been considered as a negative prognostic factor. The aim of this study is to evaluate the clinical significance of the NLR in patients with advanced non-small cell lung cancer (NSCLC) treated with chemotherapy.
Methods: One hundred and seventy one stage IV NSCLC patients diagnosed in our institution between April 2004 and March 2009 were retrospectively reviewed. NRL $\geqslant$5 was considered elevated. Baseline factors analyzed were histology, gender and NLR. Overall survival (OS) and progression-free survival (PFS) were calculated by the Kaplan–Meier method.
Results: Baseline patients characteristics: median age 63 (30−82 years), males 83.6%; adenocarcinoma 40%, large cell carcinoma 21.1%, squamous carcinoma 18.1% and undifferentiated carcinoma 3.5%. All patients were treated with chemotherapy and 36.3% had partial response. NLR was elevated in 60 (35.1%) patients and no differences were detected according clinical characteristics (histology, sex or tumour size). After a median follow-up of 9.1 months, 164 patients relapsed and 159 patients had died. PFS and OS in patients with normal and elevated NLR were 5.6 vs 3.2 months ($p = 0.09$) and 9.1 vs 5.6 months ($p = 0.032$) respectively. Thirty five (60.3%) patients with an elevated basal NLR, normalized the ratio after two cycles of chemotherapy. The OS in patients with persistently abnormal NLR after chemotherapy was of 3.9 vs 8.8 months in patients with normalized NLR ($p = 0.042$). In the multivariate analysis histology (undifferentiated carcinoma) and elevated NLR were independent predictors of survival ($p < 0.01$).
Conclusion: In our analysis, elevated NLR is correlated with worse survival in advanced non-small cell lung cancer These results have highlighted NLR as a potentially useful prognostic marker due to easy accessibility and reproducibility.

1444 POSTER

Evaluation of Hand–foot Syndrome (HFS) as a Potential Biomarker of Sunitinib (SU) Efficacy in Patients (pts) With Metastatic Renal Cell Carcinoma (mRCC) and Gastrointestinal Stromal Tumour (GIST)

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Background: Common side effects of tyrosine kinase inhibitors (TKIs) such as SU include HFS and related skin toxicities. SU is a multitargeted inhibitor of VEGFR, PDGFR and KIT, and is standard of care for the treatment of advanced RCC and imatinib-resistant/intolerant GIST. In this retrospective analysis, correlations between SU-associated HFS and efficacy endpoints were investigated in mRCC and GIST pts from 5 and 4 completed clinical trials, respectively (NCT00054886, NCT00077974, NCT00137423, NCT00083889, NCT00338884, NCT00075218, NCT00137449, NCT00372567; RTKC-0511–013).
Methods: Analyses included data from 1,186 pts with mRCC (n = 770) or GIST (n = 416) who received single-agent SU at 25, 50, or 75 mg/d on an intermittent schedule (4 weeks [wk] on/2 wk off, 2 wk on/2 wk off, or 2 wk on/1 wk off: n = 869; 73%) or at 37.5 mg continuous daily dosing (n = 317; 27%). Median progression-free survival (PFS) and overall survival (OS) were estimated by Kaplan–Meier methods and compared between pts with vs. without HFS by log-rank test. ORR was compared by Pearson's chi-square test. Tumour response was assessed by investigators and adverse events were recorded regularly. Multivariate, time-dependent covariate, and landmark analyses were performed.
Results: Of 1,186 pts, 260 (22%) developed any-grade HFS, compared with 926 (78%) who did not. Pts with mRCC who developed HFS had significantly better ORR (66.5% vs. 31.8%), PFS (14.3 vs. 8.3 mo), and OS (38.3 vs. 18.9 mo) than pts who did not ($P < 0.0001$). Pts with GIST who developed HFS also had significantly better ORR (22.2% vs. 10.7%), PFS (11.0 vs. 5.5 mo), and OS (35.7 vs. 16.6 mo) than pts who did not ($P < 0.01$). SU-associated HFS remained a significant predictor of both PFS and OS in a multivariate analysis (and of OS by time-dependent covariate analysis) in both mRCC and GIST pts. In 6- and 12-wk landmark analyses, pts with mRCC but not GIST who developed HFS had significantly longer OS, with a trend toward longer PFS, than pts who did not.
Conclusions: SU-associated HFS was associated with improved PFS and OS in both mRCC and GIST pts, although the landmark analysis suggests that HFS may not be a reliable biomarker of SU efficacy at early time points.

1445 POSTER

HOXB9, a Gene Promoting Tumour Angiogenesis and Proliferation, is a Novel Prognostic Biomarker in Human Breast Cancer

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Background: Recently, it was reported that HOXB9, a member of homeobox genes, expression promoted tumour neovascularization and metastasis in vitro and in vivo assay. These findings imply that overexpression of HOXB9 contributes to tumour progression through activation of signaling pathways that alter both tumour-specific cell fates and tumour-stromal microenvironment, leading to increased invasion and metastasis. (Hayashida et al., PNAS 2010) In this study, we evaluated the correlation between HOXB9 expression, clinical outcomes, and the clinicopathological variables in breast cancer patients, and the contribution of HOXB9 expression to tumour cell proliferation and angiogenesis.
Materials and Methods: A consecutive series of 141 patients with invasive ductal carcinoma who underwent surgical treatment from January 2004 to January 2005 were examined. HOXB9 protein expression was analyzed immunohistochemically using the anti-human HOXB9 polyclonal antibody. Immunostaining of Ki-67, CD31, and CD34 were also performed to evaluate the association between tumour proliferation, and angiogenesis and HOXB9 expression.
Results: Of 141 tumour specimens immunostained for HOXB9, 69 specimens (48.9%) were positive staining. Statistical analysis revealed