show a putative involvement of the kinase Ret (known to phosphorylate the Y654 site of beta-catenin) upstream in the pathway activated by the mechanical deformation. Treatment during compression with Sunitinib, a specific inhibitor of Ret, impairs Ret pY1062 phosphorylation, in the same way as beta-catenin nuclear translocation and Twist and c-Myc gene expression. We propose that strains associated to intestinal transit or tumour growth triggers the activation of the primary oncogene program in genetically predisposed pretumoral APC+/− mice colon tissues *ex vivo*. Nowadays our goal is to check the effect of different specific Ret kinase inhibitors on this mechano-sensitive oncogenic pathway and test its impact on tumour progression *in vivo*.

6029 POSTER

Osteopontin Enhanced Hepatic Metastasis of Colorectal Cancer Cells

L. Ding[1], H.G. Hu[1], S. Zheng[2]. [1]*Second Affiliated Hospital Zhejiang University College of Medicine, Medical Oncology, Hangzhou, China;* [2]*Second Affiliated Hospital Zhejiang University College of Medicine, Cancer Institute, Hangzhou, China*

Background: Liver metastasis is a major cause of mortality from colorectal cancer (CRC). However, the underlying mechanisms are largely unknown. Osteopontin (OPN) is a secreted phosphorylated glycoprotein that is involved in tumour migration and metastasis. But the whole story of OPN relating to cancer has been far from clear to date.
Material and Methods: OPN mRNA was examined in tissues from CRC, adjacent normal mucosa and liver metastatic lesions using quantitative real-time PCR analysis. The protein expression of OPN and its receptors (integrin αv and CD44 v6) was detected with immunohistochemical (*IHC*) method. The role of OPN in liver metastasis was studied in established colon cancer Colo 205 and SW480 cells lines transfected with sense- or antisense-OPN eukaryotic expression plasmids. Florescence redistribution after photobleaching (FRAP) was used to study gap functional intercellular communication (GJIC) among OPN-transfected cells.
Results: It was found that OPN was highly expressed in metastatic hepatic lesion of CRC compared to primary CRC tissue and adjacent normal mucosa. OPN expression was also detected in normal hepatocytes surrounding CRC metastatic lesion. Two known receptors of OPN, integrin αv and CD44v6 proteins, were strongly expressed in hepatocytes of normal liver. Colon cancer cells with forced OPN expression exhibited increased heterotypic adhesion with endoepithelial cells and weakened intercellular communication.
Conclusions: OPN is playing a significant role in CRC metastasis to liver through interaction with its receptors in hepatocytes, decreased homotypic adhesion and enhanced heterotypic adhesion.

6030 POSTER

The Number of High Risk Factors is Related to Outcome in Stage II Colonic Cancer Patients

B. Koebrugge[1], D.J. Lips[1], F.J. Vogelaar[1], J.F. Pruijt[2], J.C. van der Linden[3], M.F. Ernst[1], K. Bosscha[1]. [1]*Jeroen Bosch Hospital, Surgery, 'S Hertogenbosch, The Netherlands;* [2]*Jeroen Bosch Hospital, Internal Medicine/Oncology, 'S Hertogenbosch, The Netherlands;* [3]*Jeroen Bosch Hospital, Pathology, 'S Hertogenbosch, The Netherlands*

Background: A subgroup of stage II colonic cancer patients are considered to be at high risk for recurrent/metastatic disease based on 1) tumour obstruction/perforation 2) <10 lymph nodes 3) T4 lesions and 4) lymphangio-invasion. Their prognosis is regarded as comparable to stage III colonic cancer and it is therefore strongly advised to treat them with adjuvant chemotherapy. The purpose of this study was *i)* to determine the magnitude of prognostic significance of the conventional high risk factors and *ii)* to determine whether the number of high risk factors influences outcome.
Materials and Methods. We retrospectively analyzed 212 stage II colonic cancer patients undergoing surgery between January 2002 and December 2008. No adjuvant chemotherapy was given.
Results. 154/212(73%) patients were considered to be high risk patients based on conventional high risk factors. 58 patients did not meet any high risk factor, 125 patients met 1 high risk factor and 29 patients met ⩾2 high risk factors. Median follow up was 40 months.
Multivariate analysis identified four independent risk factors for recurrent/metastatic disease: age, obstruction, perforation and lymphangio-invasion.
The three-year-DFS-rates for the low-risk group, the high-risk group with 1 high-risk-factor and the high-risk group with ⩾2 high-risk-criteria are 90.4%, 87.6% and 75.9% respectively.
Patients meeting ⩾2 conventional high risk criteria had a significantly worse three-year-disease free survival ($p < 0.002$).
Conclusions. Four independent high risk factors were identified. The number of high risk factors does influence outcome. Therefore, patients with ⩾2 high risk factors should receive adjuvant chemotherapy without any hesitation.

6031 POSTER

Combined Neoadjuvant Chemoradiotherapy With Radiosensitization Shows Good Response and Low Toxicity Rate in Locally Advanced Rectal Cancer Treatment

S.S. Gordeyev[1], V.V. Glebovskaya[2], E.N. Halavka[3], S.T. Mazurov[4]. [1]*Blokhin Cancer Research Center, Proctology, Moscow, Russian Federation;* [2]*Blokhin Cancer Research Center, Radiational Oncology, Moscow, Russian Federation;* [3]*Blokhin Cancer Research Center, Radiology, Moscow, Russian Federation;* [4]*Blokhin Cancer Research Center, Endoscopy, Moscow, Russian Federation*

Background: Resectability is a major issue for locally advanced fixed or tethered rectal cancer. The search for new ways to improve neoadjuvant treatment effect without increasing toxicity is an important research direction. The aim of this trial was to evaluate treatment response and toxicity rate after chemoradiotherapy with local hyperthermia and metronidazole as radiosensitizers.
Methods: From July 2006 to February 2011, 74 previously untreated patients were enrolled. The external dose of radiotherapy was 40 Gy given in 10 fractions 3 times per week. Oral capecitabine 650 mg/m^2 bid was given on days 1−22 and intravenous oxaliplatin 50 mg/m^2 was administered on days 3, 10, 17. Local high-frequency hyperthermia 41–45^{0}C during 60 minutes was performed on days 8, 12, 15, 17. Metronidazole 10 g/m^2 was administered per rectum on days 12 and 17. Surgery was carried out within 6−8 weeks after neoadjuvant treatment. Tumour regression was measured according to Dworak scale. Toxicity was evaluated by NCI-CTC v 3.0 criteria.
Results: Grade I-II toxic events were observed in 34 (45.9%) patients. Grade III events included diarrhea − 14.9% (n = 11), vomiting − 2.7% (n = 2) and proctitis − 2.7% (n = 2). No grade IV events were observed. Five patients (6.7%) remained inoperable. All 69 (93.3%) patients with resected tumour had R0 resection. Eight patients had grade IV regression (10.8%), 29 patients had grade III regression (39.2%).
Conclusions: Investigated treatment scheme with radiosensitization demonstrates encouraging treatment response rate, while toxicity remains comparable to standard regimens.

6032 POSTER

Colonic Tumour Localization, Clinicopathological Patterns and Incidence of Colorectal Carcinoma in Mexican Population

E. Ruiz-Garcia[1], H. Astudillo-de la Vega[2], J.L. Aguilar-Ponce[3], J. Martinez-Cedillo[3], A. Meneses-Garcia[4], G. Calderillo-Ruiz[1]. [1]*INCan, Gastro-Intestinal Cancer Department, Mexico D.F., Mexico;* [2]*Oncology Hospital CMN "SXXI" IMSS, Translational Research Laboratory, Mexico D.F., Mexico;* [3]*INCan, Medical Oncology Department, Mexico D.F., Mexico;* [4]*INCan, Pathology Department, Mexico D.F., Mexico*

Background: Colorectal cancer (CRC) is the third most commonly diagnosed cancer worldwide. The aim of this study was to examine the interrelationship between the anatomical distribution of CRC by gender, age at presentation, and incidence rates for the disease in the National Cancer Institute of Mexico (INCan).
Material and Methods: A retrospective study was carried out on 403 cancer cases diagnosed in the Gastrointestinal Cancer Department of INCan, for a 6-year period (2004–2010). Data from clinical reports, computed tomography reports and surgical resection specimens were analyzed and included in a prospective database for statistical analysis. Tumours according colon-anatomy were classified as: proximal (PC), tranverse (TC), ascending (AC), descending (DC) and sigmoid colon (SC).
Results: Median age was 54 years (range 21−88 years). Distribution by gender was: 53.8% females and 46.2% males. Adenocarcinoma was the most frequent (94.9%) with moderately differentiated tumours predominantly. Twenty patients were identified as being in stage I (5%), 94 patients in stage II (23%), 132 patients in stage III (33%) 137 patients in stage IV (34%),15 patients were in recurrence (4%) and 1% (n = 5) of the patients were not classified. Colonic tumour localization was: 21.8% for PC (34%, stage I/II); 24.2% for TC (37%, stage IV), 46.6% for DC (38.2%, stage III) and 7.4% SC (53.3% stage II, III). Ninety-two (22.8%) of all cases were young patients (⩽40 years). Colonic tumour location compared with age was: young patients (⩽40 years) were mostly localized at DC (10.1%; and 31% stage IV) follow by PC (6.4%; and 46% in stage IV), and TC (4.9%). Meanwhile for patients over 40 years (77.2%), colonic tumour localizations predominantly were DC (36.4%), TC (19.1%) and AC