However CD 44, P53 staining, high tumor grade occurred preferentially among the AFP expressing tumors. All but one of the 10 HCC-s showing nuclear positivity for β-catenin were AFP negative.

Conclusions: Our results indicate that AFP expression in HCC-s is more frequently associated with several unfavourable prognostic factors, while nuclear β-catenin positivity, suggesting constitutive activation of the Wnt signal pathway is more common among the AFP negative liver tumors. This observation supports the microarray data on *in vivo* human tumors and implies that the re-evaluation of the signifinance of AFP production in HCCs may be required.

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The use of a novel chromatographic molecular method for the detection of the membrane cancer antigen Ep-CAM (17-1A) in peripheral blood and bone marrow of patients with metastatic colorectal cancer.

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A new method for the molecular detection of PCR amplified product has been developed (Medicon Hellas S.A. and Pegasus Genomics S.A.). The outcome of this research project is a strip that can give fast and highly reliable results for the detection of specific PCR products utilizing a chromatographic method. According to this method, biotin-labeled products are applied to a strip and their presence can be analyzed chromatographically due to a chromogenic reaction. In our study we used this product for the detection of the Ep-CAM gene expression in human peripheral blood and bone marrow samples of patients with metastatic colorectal cancer and heavy tumor load and we confirmed the results by the standard method of agarose gel electrophoresis. 30 patients with participated in this study providing 27 peripheral blood samples and 26 bone marrow samples. Total RNA extraction (Abgene, UK) was performed followed by RT using oligo(dT)s as primers (Promega, USA) according to standard protocols. The cDNAs produced by this procedure were used as templates in PCR with selected Ep-CAM primers to amplify specifically 540bp of the Ep-CAM mRNA. PCR products were then detected using the strip and the results were confirmed by 1,5% agarose gel electrophoresis. 23 patients provided both blood and bone marrow samples. 17 patients (74%) expressed the Ep-CAM both in blood and in bone marrow whereas only 1 (4%) was negative in both. The remaining 5 patients (22%) were positive for Ep-CAM expression in their blood and negative in their bone marrow. 2 of the 3 patients who provided only bone marrow samples were positive for Ep-CAM. All 4 patients who provided blood samples, were found positive for Ep-CAM. Totally 19 of the 26 bone marrow samples (73%) and 26 of the 27 blood samples (96%) were found positive for Ep-CAM expression using the strip detection method and the standard 1,5% agarose gel electrophoresis. The new strip detection method is at least as reliable as agarose gel electrophoresis and certainly easier to handle, faster and safer for the user (no ethidium bromide staining needed). It is also highly specific for the PCR product under investigation due to the use of the internal probe. We recommend the use of our method in the molecular detection of circulating micrometastatic cancer cells.

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Evaluation of tumor board recommendations at the center of gastrointestinal oncology (ZGO) at Tübingen University

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Background: The center of Gastrointestinal Oncology (ZGO) is operated by a disease oriented interdisciplinary working group within the context of the Interdisciplinary Cancer Center at Tübingen University. Data from patients treated within the university hospital or at associated medical facilities are collected and individual patient management is discussed at interdisciplinary tumor boards with members of all departments twice weekly.

Material and methods: We have evaluated medical data and diagnostic and therapeutic procedures in all patients presented at the ZGO tumor boards in 2001.

Results: 393 of 445 (88%) pts. were evaluable. The medium age of the pts. was 60 years. Pts. had on average 2 accompanying illnesses (mostly cardiac or pulmonary diseases). The majority of the pts. (73%) was male. Localization of malignancies of patients discussed at the board was distributed as follows: 26% rectum, 21% colon, 20% esophagus, 16% stomach, 5% pancreas, 4% hepatocellular, 3% cholangiocellular, 5% other gastrointestinal malignancies. The majority of the pts. had a malignancy with the initial TNM-stages as follows: T3 (51%), N1 (48%), M0 (77%) and G2 (51%). On average interdisciplinary management was discussed 3 month after first diagnosis. 74% of pts. were presented once, 26% twice at the ZGO tumorboard. 60% of the questioning occurred in the palliative setting, 26% were on an adjuvant, and 14% on a neoadjuvant approach. 89% of the pts. were treated within the university hospital. The surgical department presented the majority of pts. (61%) at the tumorboards. The recommendations were mainly therapeutic (76%) or diagnostic (12%) or both (12%). Participation in a clinical study was suggested to 7% of the pts. 85% of all recommendations given by the tumor board were followed. Reasons why recommendations were not followed were analysed: 47% of these pts. received an alternative treatment strategy, in 18% no therapy was chosen and 25% of these pts. declined the recommendation. 10% of pts. died prior to further treatment.

Summary: This analysis describes the distribution of patients in routine care discussed in a GI-specialized interdisciplinary tumorboard at a university hospital. Quality control needs to include the assessment whether interdisciplinary recommendations were followed. The overall outcome must be further analysed to validate the impact of multidisciplinary management strategies.

Colorectal cancer

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A phase I study of irinotecan (CPT-11) and capecitabina (XL) as second line treatment in advanced colorectal cancer

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Objective: To determine the MTD of XL administered during 7 days, associated with CPT-11 175 mg/m^2 day 1, every 2 weeks.

Material and Methods: Patients (p) with histological diagnosis of CCR, with previous chemotherapy with oxaliplatin for metastatic disease, ECOG $\leq$ 2, adequate bone marrow, renal and hepatic function.CPT-11 175 mg/m^2 IV 30 min. day 1, followed by XL o.r. taken b.i.d. days 2-8, every 2 weeks. Dose escalation: XL- Level 1: 500 mg/m^2 b.i.d.; Level 2: 750 mg/m^2; Level 3: 1.000 mg/m^2 b.i.d.; Level 4: 1.250 mg/m^2 b.i.d.

Results: 26 p were included (L1/2/3: 3/5/18; M/F, 13/13), median age 58 (range 40-79) and ECOG 0-1 (85%). Primary tumour sites: colon (17p) and rectum (9p). Histology: Adenocarcinoma. Previous treatment: surgery (73.1%), adjuvant chemotherapy (38.5%), radiotherapy (30.8%). Median number of tumoral lesions was 1. 157 cycles were administered (L1/2/3: 11/31/115; median 4.0/7.0/5.5) with a median relative dose intensity in L1/2/3 of 92/87/90% for CPT-11 and 92/90/87% for XL. Dose levels were escalated if toxicity grade 3/4 was not observed. No toxicity grade 3/4 was observed in levels 1-2. In L3, DLT was observed in 3 of 18 p: diarrhea G3, neutropenia G3 and vomiting G3. Global toxicity in L3 (per patient/cycle) was neutropenia (2.5/16.7%), anemia (1.7/11.1%), leucopenia (3.4/11.1%), diarrhea (5.9/33.3%), vomiting (1.7/11.1%), asthenia (1.7/11.1%), mucositis (0.8/5.6%) and infection without neutropenia (0.8/5.6%). Responses were only obtained in L3: 5 PR (27.8%) CI 95% (7.1 48.5%).

Conclusions: MTD has not been established, however the schedule administered in L3 is recommended, as it presents an adequate and manageable toxicity profile. Preliminary data show that this is an effective and well tolerated combination.