antitumoral activity of SSTAs analogs given as sole treatment has been presented. We undertook a phase II trial (NCT0032646) to evaluate the efficacy of lanreotide Autogel 120 mg on tumour growth stabilisation in patients with documented progressive NETs.

Material and Methods: Sample size was based on the assumption that 25% and 12% of the patients with progressive NETs, on SSTA analog treatment, are progression-free after first and second year, respectively. Thirty Caucasian patients from 17 Spanish hospitals with advanced and/or metastatic well-differentiated NETs progressive within the last 6 months were treated with lanreotide Autogel 120 mg every 28 days until progression. Treatment with SSTA during the previous 6 months was an exclusion criterion. No patients received chemotherapy (CT) or interferon (IFN) during the 4 weeks before study inclusion. Radiologic evaluation was performed every 3 cycles. Primary endpoint was Progression Free Survival (PFS) per central blind review (RECIST). Clinical baseline characteristics were: Age median: 63 y (40−78), M/F (50%/50%), Median time since diagnosis 5.5 y (0.2–22.2), ECOG 0/1/2: 63%/30%/7% Foregut/Midgut/Unknown: 47%/40%/13%; Ki index: median 2.0 (1−20); Functioning/Non Functioning (63%/37%); Previous pharmacological treatment: naive/CT/IFN/SSTAs (50%/33%/23%/20%).

Results: Median PFS (95% CI) was 12.9 months (7.9–16.5) both in ITT and PP populations. Best tumour responses were: 4%PR/ 89%SD/ 7% PD. Ki 67 index was the most likely prognostic factor for PFS (n = 21, HR 1.17; p = 0.017). Discontinuation of treatment because of adverse events (AE) occurred in one patient. Only one severe related AE was detected (aerophagia). No impairment in EORTC QLQ-C30 for the whole group was detected during treatment.

Conclusions: In this study, the sole treatment with lanreotide Autogel 120 mg in progressive NET patients provides a median PFS >12 months with a very low toxicity. This apparent tumoral control effect should be confirmed in a phase III ongoing trial (Clarinet, NCT00842348).

6631   POSTER

Relationship Between Degree of Helicobacter Pylori Colonization and Prognosis in Advanced Gastric Cancer

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Introduction: Helicobacter pylori (HP) infection is an important factor for the development of gastric cancer. Some studies showed that prognosis in patients with positive HP status had no significant difference from the patients with negative cases. The others provided evidence of a better prognosis in patients with HP infection compared with negative cases. However these contradictory results have not been explained well enough. Most of these studies used serological analysis as the only method to assess HP status. At present, there is no convincing data for the relationship between degree of HP colonization and prognosis of advanced gastric cancer. Here we report the results of a study of the relationship between the density of HP colonization around the tumour sites and prognosis of patients with gastric cancer.

Materials and Methods: Sixty one patients with advanced gastric cancer were enrolled in this study. They were tested HP status around the tumour site and received the chemotherapy between March 2006 and February 2011 in Ansan Korea University Hospitals. Tissue sections (4 μm thick) were cut and stained with H & E stain and Cresyl-violet stain. The density of H. pylori colonization was graded as no, mild, moderate and severe around the tumour site. HP density determinations were made according to Sydney classifications.

Results: The overall median survival of patients with advanced gastric cancer was 10 months (7.7–12.3 months 95% CI). Ten patients had severe HP colonization around tumour sites. Forty one patients had no HP colonization around the tumour sites. Patients with severe HP colonization had a median survival time of 18 months (95% CI, 1.8–34.2 months) which was significantly longer than that for negative or mild to moderate HP colonization (median 18 months vs. 8 months; $P < 0.001$, log-rank test). Interestingly, patients with moderate HP colonization had a median survival time of 4 months (95% CI, 2.7−5.3 months).

Conclusions: Patients with severe HP colonization around gastric cancer appeared to be associated with a good prognosis. These results suggest that HP colonization around tumour sites may be used as a prognostic factor in patients with advanced gastric cancer. And we might consider HP colonization around tumours as a predictive factor to determine and modify the treatment provided. Further study is warranted to confirm these findings in patients with advanced gastric cancer.

6632   POSTER

BRCA1/2 Mutations in Pancreatic Cancer Patients and Their Clinical Characteristics

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Background: Carriers of germline BRCA1/2 mutations have an increased risk of developing breast and ovarian cancer. Studies have also demonstrated that BRCA1/2 mutations increase the risk of pancreatic cancer (PC). The present study aimed to evaluate the frequency and clinical relevance of BRCA1/2 predominant mutations in Ashkenazi PC patients.

Material and Methods: A cohort of 70 PC patients was recruited from the Institute of Oncology at Rambam Health Care Campus. Of these, 58 of Ashkenazi origin were included, 35 (60%) males and 23 (40%) females. Following informed consent, socio-demographic and clinical profiles were collected at patient-researcher encounter. Data were complemented via the patients' oncology charts, when needed. A blood sample was drawn for genetic testing. The three predominant Jewish mutations (185delAG and 5382insC in BRCA1 and 6174delt in BRCA2) were tested for each PC patient. Mutation analysis schemes were based on PCR and restriction enzyme digests.

Results: Ten patients (17.2%) were defined carriers (8 patients carried the 6174delT mutation and 2 patients carried the 185delAG mutation). Earlier age at diagnosis was noted among mutation carriers compared to non-carriers (58.7 y±7.2 and 66.0 y±9.7, respectively, p = 0.029). Six (60%) PC patients with BRCA1/2 mutations compared to 12 (25%) non-carriers reported positive family history of breast, ovarian or pancreatic cancer (p = 0.03). No differences between carriers and non-carriers were found as regards gender and history of diabetes mellitus or heart disease.

Conclusions: Mutations in BRCA1/2 constitute a major cause for PC in Ashkenazi Jews and carriers are diagnosed about 7 years earlier than non-carriers. As the identification of a BRCA mutation in an individual with PC may have significant implication for other family members, genetic diagnosis for PC patients and family members at risk is warranted. It may also have a significant benefit for the treatment of these patients, related to the anti-tumour activity of the new poly-ADP-ribose polymerase (PARP) inhibitors in cancer patients with genetic BRCA mutations.

6633   POSTER

Conditional Probability of Survival Nomogram After an R0 Resection for Gastric Cancer

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Background: Survival estimates after curative surgery for gastric cancer are based on UICC staging, or on multivariable nomograms. However, the risk of dying of gastric cancer is not constant over time, with most deaths occurring in the first two years after resection. Therefore, the prognosis for a patient who survives this critical period, improves. This improvement in prognosis over time is termed Conditional Probability of Survival (CPS). The aims of this study were to develop a CPS nomogram predicting 5-year disease-specific survival (DSS) from the day of surgery for patients surviving a specified period of time after a curative gastrectomy, to explore whether variables becoming available during follow-up improve the nomogram in the follow-up setting, and to compare the nomogram with the UICC staging system.

Materials and Methods: A CPS nomogram was developed from a combined US-Dutch dataset, containing 1642 patients who underwent an R0 resection with or without chemotherapy/radiotherapy for gastric cancer. Baseline variables used in the nomogram were age, sex, tumour location, tumour size (cm), invasion depth, Lauren classification, number of positive and number of negative nodes. Weight loss, performance status (PS), hemoglobin (HGB), and albumin (ALB) at one year after resection were added to the baseline variables in a new nomogram. Predictive accuracy of the nomogram was compared with the 7th ed. UICC staging system.

Results: The CPS nomogram based on baseline variables was highly discriminating (concordance index: 0.772). Surviving one, two, or three years after surgery translates into a median improvement of 5-year DSS from surgery of 7.2%, 19.1%, and 31.6%, respectively, as compared to the baseline prediction directly after surgery. Introduction of additional

variables available at one year follow-up did not improve the nomogram. The nomogram outperformed the UICC 7th edition staging system.

Conclusions: A robust gastric cancer nomogram was developed, with the unique ability of predicting improved survival for patients alive at time points after surgery. Introduction of variables available at one year after resection did not further improve this nomogram. This might be caused by the limited availability of follow-up data, as well as by the already strong predictive accuracy of the baseline variables. For individual patient prognosis, the nomogram should be the preferred choice over the UICC staging system.

6634   POSTER

5-year Experience in Diagnosis and Treatment of Neuroendocrine Tumours

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Background: Although neuroendocrine tumours (NETs) are considered rare tumours, there are several reports of increasing incidence and evolving treatment of NETs. The aim of this prospective study was to describe clinical characteristics and treatment outcomes of NETs diagnosed at Iran Cancer Institute between 2003–2009.

Material and Methods: All 185 NETs were documented with central pathology-immunohistochemistry review according to WHO criteria. Choosing medical therapy including somatostatin analogue (LAR), interferon-alfa or chemotherapy was based on WHO grading system. Cox-regression analysis was used to find independent factors of better survival.

Results: Median age of the patients was 51 and 85 were women (45.9%). The most common sites of disease were unknown primary (31), stomach (19) and small intestine (17). There was a 43.2% primary pathologic diagnosis of NETs. Others were diagnosed as poorly differentiated carcinoma, adenocarcinoma or small round-cell tumours at first. Although only 32% of the patients had localized NET, 50% underwent curative surgery even with regional or metastatic disease. Overall 5-year survival was 38% (68% for carcinoid tumours). Median survival was 100 months by using combination of LAR and interferon in low and intermediate grade advanced tumours, compared to 52 months for LAR or 16 months with interferon alone.

Conclusion: The increased use of more sensitive and specific neuroendocrine tumour markers now identified poorly differentiated NETs, which changed the prevalence and site distribution of disease. Despite advanced stage, surgery played a major role in treatment of our patients. A combination of LAR and interferon has been very effective in patients with advanced disease.

6635   POSTER

Molecular Prognostic Factors in Gastric Cancer

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Background: The depth of tumour invasion, primary tumour histology, lymph node status, stage are generally used as routine prognostic factors in gastric cancer. In this study we've investigated molecular markers which can possibly predict high risk of a tumour progression in gastric cancer.

Materials and Methods: To evaluate the relationships of immunohistochemical expression of MMP-2, MMP-9, E-cadherin, β-catenin, c-erbB-2, EGFR with prognosis of gastric adenocarcinoma patients (n = 91), who underwent curative surgery at Khabarovsk Oncology Center.

Results: The reduced membrane expression of the adhesion?s protein E-cadherin was demonstrated in 61 (67.0%) gastric carcinomas and correlated negatively only with lymph node metastases (p = 0.024). In 46 tumours (50.5%) the β-catenin overexpression (another protein of adhesion) has been found. The β-catenin overexpression was associated with depth of tumour invasion (p < 0.001), lymph node metastases (p < 0.001) and advanced stage (p < 0.001). There was no correlation between expression of E-cadherin and β-catenin and 3-year disease free and overall survival (p = 0.416, p = 0.330 and p = 0.156, p = 0.438). 46 cases (50.5%) showed the matrix metalloproteinases-2 (MMP-2) overexpression. The MMP-2 overexpression was associated with depth of tumour invasion (p = 0.002), lymph node metastases (p = 0.003) and advanced stage (p = 0.002). Hyperexpression of the MMP-9 has been found in 50 (54.9%)

gastric carcinomas. MMP-9 expression correlated with advanced stage (p = 0.004), depth of invasion (p < 0,001). There was no correlation between expression of MMP-2 and 3-year disease free and overall survival, but hyperexpression of MMP-9 was associated with poor 3-year disease free survival and overall survival (p = 0.008, p = 0.003). The membrane hyperexpression of the epidermal growth factor 2 type (c-erbB-2 or Her-2/neu) has been observed in 31 patients (34.1%). In 19 (20.9%) patients the EGFR membrane hyperexpression (the epidermal factor of growth 1 type or c-erbB-1) has been found. The c-erbB-2 and EGFR overexpression were associated with depth of tumour invasion (p = 0.009, p = 0.025), lymph node metastases (p < 0.001, p < 0.001) and advanced stage (p < 0.001, p = 0.003). There was no correlation between expression of c-erbB-2 and EGFR and 3-year disease free and overall survival (p = 0.999, p = 0.796 and p = 0.864, p = 0.669).

Conclusions: Stomach cancer is an immunohistochemical heterogeneous tumour, but the overexpression of MMP-9 is the only one which can predict 3-year disease free survival and overall survival, and so can be a possible target for therapeutic agents.

6636   POSTER

Pancreatic Exocrine Insufficiency in Advanced Pancreatic Cancer − Fecal Elastase-1 (FE-1) Value Is a Strong Independent Predictor of Poor Survival

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Background and Aims: Pancreatic exocrine insufficiency (PEI) can be diagnosed with high accuracy by the measurement of fecal elastase-1 (FE-1). The relationship between prognosis of advanced pancreatic cancer (PC) and PEI is unknown. Aim of the present study is to investigate a possible correlation between FE-1 value and survival in patients with advanced pancreatic cancer (PC).

Methods: A prospective observational non-randomized study was conducted at our institution between 2007 and 2009. All patients with an unresectable PC were enrolled. FE-1 was measured in all the subjects at the admission. PEI was considered "absent" when FE-1 was greater than 200 mg/gram, "moderate" if FE-1 was 100–200 mg/gram, "severe" if FE-1 was less than 100 mg/gram and "extremely severe" if FE-1 was less that 20 mg/gram. Univariate and multivariable analyses were performed.

Results: During the study period 194 patients with unresectable PC were enrolled. The median value of FE-1 was 204 mg/gram (IQR 19; 489 mg/gram). In 97 patients (50%) FE-1 value was >200 mg/gram. Overall, 48 (25%) had an extremely severe PEI, 28 (14%) had a severe PEI and 21 (11%) had a moderate PEI. Patients with extremely severe PEI had a higher incidence of albumin values <40 g/L (44% versus 29% versus 14%, $P < 0.01$), a higher distribution of pancreatic head localizations (96% versus 73.5% versus 59%, $P < 0.01$). a higher rate of jaundice (70% versus 37% versus 34%, $P < 0.01$). The median overall survival was 10.5 months. Patients with FE-1 $\leqslant$30 mg/gram had a significantly worse prognosis (median survival of 7 months versus 11 months, $P = 0.031$). By multivariable analysis, the presence of metastases (HR 1.81, $P < 0.0001$), hemoglobin $\leqslant$12 g/L (HR 2.12, $P = 0.001$), albumin $\leqslant$ 40 g/L (HR 1.64, $P = 0.010$) and FE-1 $\leqslant$20 μg/gram (HR 1.59 $P = 0.023$).

Conclusions: For the first time we demonstrated that a low value of FE-1 is strongly correlated with poor survival in patients with advanced pancreatic cancer. Further studies are needed to investigate a potential role of enzyme replacement therapy in patients with advanced pancreatic tumours.

6637   POSTER

Rehabilitation for Patients With Uppergastrointestinal or Gynaecological Cancers − the Patient's Perspective

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Objectives: This study investigated patient's experiences of rehabilitation needs following treatment for gynaecological (GYN) or upper gastrointestinal (UGI) cancer.

Methods: Participants were recruited to focus groups from consecutive outpatient clinics at a UK cancer centre. These were audiorecorded, transcribed verbatim and continued until data saturation was reached and confirmed (at the fifth group). Data were collected and analysed using grounded theory and coded independently by two researchers.

Results: Thirty-three men and women who had completed treatment participated in the groups from July to October 2010. A core theme of "seeking a new normality" was evident throughout the research. Four key