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phenotype had significantly longer RFS compared to those with ERlowIL8high and ERhighIL8high phenotypes (p=0.02, p=0.04, respectively); subgroup with PRlowIL8low phenotype had significantly longer RFS compared to those with PRlowIL8high and PRhighIL8high phenotypes (p=0.003, p=0.02, respectively); and subgroup with HER2–IL8low phenotype had significantly longer RFS compared to those with HER2–IL8high and HER2+IL8high phenotypes (p=0.01, p=0.02, respectively). **Conclusions:** IL-8 is a potential biomarker of unfavorable prognosis in hormone dependent breast cancer that is associated with the established parameters ER/PR and HER2. Receptor-mediated signaling could act additively with IL-8 signaling in progression of hormone dependent breast cancer.
Keywords: biomarker, breast cancer, HER2, hormone receptor, interleukin-8.

P21

Variant rs745430558 in the *SMAD4* gene promoter as a biomarker for adenocarcinoma of the pancreas

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Background: Our previous study has identified variant rs745430558 in the *SMAD4* gene promoter as potential biomarker for adenocarcinoma of the pancreas. The allele delTT (10T instead of 12T) was present in malignant pancreatic tissue with a prevalence of 88%. As analysis of cfDNA in liquid biopsy represents a noninvasive approach for the diagnosis and monitoring of malignancies, the aim of this study was to determine the presence of 12T and 10T alleles in the peripheral blood of patients with suspected pancreatic malignancy. **Material and Methods:** The study was performed using cell-free DNA (cfDNA) isolated from the serum of 15 patients with morphological alterations of the pancreas. The presence of 12T and 10T alleles was assessed by allele specific quantitative real-time PCR. **Results:** Of 15 analyzed samples, 13 were diagnosed with adenocarcinoma of the pancreas (AcP), 1 with neuroendocrine tumor (NET), and 1 with pancreatitis. The 10T allele was present in 84.7% of cases with AcP and also in the sample from the patient with NET. In patient with pancreatitis only the 12T allele was detected. **Conclusion:** Our research has shown that the results of liquid biopsy of patients with AcP are in agreement with tissue specimens analysis. Targeted detection of the rs745430558 10T variant in patients with suspected pancreatic malignancies could be a potential biomarker for diagnosis of AcP inthefuture.
Keywords: cfDNA, liquid biopsy, pancreatic cancer

P22

Effect of BET inhibitors on cancer stem cells sorted from primary oral cancer cell culture

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Background: Oral cancer is the most common malignant tumor in the oral and maxillofacial region, and squamous cell carcinoma (OSCC) accounts for 80% of tumors of the oral cavity. Despite improvements in OSCC management, survival rates remain relatively low and the discovery of novel anti-neoplastic agents are urgently needed. The study investigated the cytotoxic effect of three BET inhibitors (JQ1, iBET-151, iBET-762), and one antitumor plant alkaloid (paclitaxel) on cancer stem cells (CSCs), sorted from primary oral cancer cell culture. **Material and methods:** Magnetic sorting was used to gain CD44 and CD133 positive cells. Double negative cells served as a control. Cells were seeded in 96 well plates, and 10 µM dose of drugs were added to the wells. After 24, 72 hours, and 7 days MTT was performed. **Results:** Real-time PCR analysis confirmed adequate sorting of the double positive (CD44+ and CD133+) cells, with negligible to none of the marker's expression in double negative cells. After 24h of treatment no significant cytotoxicity of the drugs was observed, in comparison to untreated cells. On 48h of treatment there was significant reduction of the cells in the presence of the drugs, but no difference was observed between CSCs and control cells. In longer treatment period (7 days), there was significant difference in cell survival between CSCs and control, in presence of the drugs, for JQ1 ($p<0.05$), paclitaxel ($p<0.01$), iBET 151 and iBET 762 ($p<0.001$). **Conclusions:** The investigated drugs were relative efficient in treatment of tumor cells, but CSCs remain more resistant to the therapy in comparison to the control.New investigations should be aimed at the successfulreduction of CSCs.
Keywords: cancer stem cells, iBET, magnetic sorting, oral cancer cell line, qPCR