6062 POSTER

Pseudocontinent Perineal Colostomy − an Interesting Technique for Low Rectal Cancer Surgery: Retrospective Study of 149 Cases

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Background: This retrospective study was designed to evaluate functional results of pseudocontinent perineal colostomy (PCPC) using Schmidt's technique in North African patients with low rectal cancer.
Methods: During 15 years, 380 abdominoperineal resections for low rectal cancer were performed. One hundred forty-nine cases among them had PCPC. There were 76 women, with an average age of 47 years. All patients had 46 Gy neoadjuvant chemoradiotherapy. Functional results were evaluated prospectively at regular intervals.
Results: There was no postoperative mortality. Operative morbidity rate was only 18.3%, essentially dominated by perineal suppuration (40%). According to Kirwan score on a functional level, 95 patients had gas incontinence and 46 patients an occasional minimal soiling. At one year surveillance, the graft was clinically well detected in 55% of cases and anorectal manometric study in 5 cases showed a hypotonic pseudosphincter. Colic irrigation rhythm was, in 74% of cases, every 24 to 48 h, and 15.6% of patients didn't need irrigations anymore 6 months after surgery.
With a median follow up of 5 years, 77% of the patients were satisfied and 23% half-way satisfied with this technique.
Conclusion: PCPC is a simple technique with a low morbidity that seems to be safe and feasible. It revolutionises low rectal cancer management by avoiding iliac stomas. It improves patients' quality of life by preserving their body image.

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Relationships Between Colorectal Cancer and Insulin, Insulin-like Growth Factor-1 and Insulin-like Growth Factor Binding Protein-3

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Background: Nowadays colorectal cancer takes one of the leading place among oncological morbidity in the whole world. Last years was marked by interest in the area of insulin-like growth factor and its connection with increasing of risk of appearance and ongoing of colorectal cancer. Insulin and insulin-like growth factor (IGF) take places in cell proliferation and suppression of apoptosis. It is also interesting to study insulin resistance in colorectal cancer patients.
Materials and Methods: 61 patients with colorectal cancer and 42 healthy people were enrolled in the study. In blood serum level of insulin, IGF-1 and IGF binding protein-3 (BP-3), c-peptide and glucose was detected.
Results: Decreasing of IGF-1 and IGFBP-3 level with the lapse of years was found in a group of healthy people. In group of patients with colorectal cancer there was no such tendency. With increasing stage of the disease level of IGF-1 also increased (52.4 ng/ml in patients with I stage comparing with 81.0 ng/ml in III stage). The same trend was noted for IGFBP-3 level − in I stage it was 2045 ng/ml and increased to 3260 ng/ml in III stage. During analisis this data with the depths of tumour invasion the highest concentration of these signs was found in T3 carcinomas so the level of IGF-1 was 59.3 in average and level of IGFBP-3 was 2922. In patients with metastatic lymphatic spread it was found the reliable increasing of IGF-1 level (81.0 ng/ml comparing with 46.9 ng/ml in patients without metastatic lymphatic lesion). In spite of this in patients with distant metastases level of IGF-1 was lower than in group with regional metastases: 38.3 ng/ml comparing with 81.0 ng/ml.
In group of colorectal cancer patients the average insulin level on an empty stomach was 9.5 pmol/l but in healthy group it was 6.2 pmol/l in people younger than 50 y.o. and 7.2 in those who were older than 50. C-peptide level was on the contrary lower twice in patients with colorectal cancer and was 262.5 nmol/l and in healthy people it was 472.3 nmol/l. The level of insulin decreased as the depths of tumour invasion increased.
Conclusions: In patient with colorectal cancer it was found loss of depending IGF-1 system on the age of patients that could be a confirmation that this regulatory mechanism was lost for them.
IGF-1 could be a marker of tumour progression till the moment of regional spread inclusive.
The highest average level of IGF-1 and IGFBP-3 was found in T3-extent local invasion and in III stage of disease. Hyperinsulinemia is found in the early stage of colorectal cancer. It's necessary to differentiate correction of hormone-metabolic disbalance in different tumour stages.

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Neoadjuvant Trans-arterial Chemo-embolization Using Irinotecan Beads for Easily Resectable Colorectal Liver Metastases − a Phase II Study

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Background: Peri-operative chemotherapy confers a 3-year progression free survival advantage for patients with colorectal liver metastases. Recent reports have also correlated degree of post-chemotherapy tumour necrosis to improved post-hepatectomy disease free survival. Studies to date have only examined multiple cycles of systemic neoadjuvant chemotherapy, which are associated with pathological damage to normal hepatic parenchyma, which in turn is associated with increased perioperative morbidity and mortality. Irinotecan eluting beads (DEBIRI-TACE) are delivered to tumour intra-arterially, where they provide controlled & sustained delivery of drug directly to tumour, maximising local response and reducing systemic exposure. Work on DEBIRI-TACE in the palliative setting has demonstrated promising early results. This study aimed to examine the feasibility and safety of a single neoadjuvant bead embolisation 1 month before hepatectomy.
Materials and Methods: Patients with easily resectable unilobar colorectal liver metastases treated at 4 centres around Europe were recruited (n = 40 succesful embolisations). DEBIRI-TACE was administered 1 month before surgery. Primary end-point was tumour resectability, Secondary end points included pathological tumour response and complication free TACE and hepatectomy.
Results: TACE attempted in 42 patients and was successful in 33. Reasons for failed TACE included arterial abnormality (n = 2), progressive disease (n = 2), bilobar disease (n = 2), hepatoma (n = 1), allergy to contrast (n = 1) and concomitant infection (n = 1). There was 1 post-TACE liver abscess (3%), and 1 post TACE pancreatitis(3%) (recognized complications). 26 patients have undergone hepatic resection so far, with R0 resection rate of 100% and no significant post-hepatectomy morbidity. Thirty day post-operative mortality was 7.6% (n = 2), with neither death related to TACE (1 intraoperative pneumomediastinum, 1 MODS after aspiration pneumonia). Complete pathological response (no viable tumour) was demonstrated in 15% of lesions, major pathological response in 55% of lesions and minor response in 30% of lesions. These pathological response rates are comparable with other reported series following multiple cycles of systemic chemotherapy.
Conclusions: Neoadjuvant DEBIRI TACE for resectable colorectal liver metastasis is safe and is not associated with increased post-hepatectomy morbidity. A single treatment with DEBIRI-TACE resulted in pathological response of tumour similar to that seen after systemic treatment, which may translate to improved progression free survival.

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Significance of Mutation in K-Ras Gene in Pathogenesis and Clinical Course of Colorectal Cancer

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Background: Morbidity and mortality from colorectal cancer take one of the leading places almost in all countries in Europe and America. One of the most important somatic mutations during colorectal cancerogenesis occurs in KRAS gene. KRAS -mutation is an early that happens before unregulated cell proliferation and malignant transformation started. Frequency of this genetic event varies in different countries. The most common place of KRAS mutation is 12 and 13 codon. According international data correlation between KRAS status and cancer spread is still under discussion.
Purpose of the study was to evaluate of frequency of KRAS mutation among Russian patients and its influence on growth and clinical course of disease.
Materials and Methods: Material of the study was 137 samples of tumour from 135 patients with colorectal cancer who were treated in N.N. Petrov Research Institute of Oncology since 2005 till 2006. 99 patients had rectal cancer and 36 patients had colon cancer. KRAS-mutations were found by an allele-specific polymerase chain reaction on DNA from tumour sections, typically obtained from a formalin-fixed, paraffin-embedded block. Statistical analyses were performed using SPSS and Statistica. Inferential statistics used for tabular data included Fisher's exact tests, Pearson 2, odds ratios with 95% confidence intervals. All P-values were two-sided. Statistical significance was ascribed to P-values $\leqslant 0.05$.
Results: KRAS-mutations were found in 48 from 135 patients and was equal to 35.6%. 44 mutations were found in 12 and 13 codons, three