SECTION: VARIA

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COMPLICATIONS AFTER LAPAROSCOPIC PROCEDURES OF LARGE BOWEL FOR COLORECTAL CANCER

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Background

The first step of the laparoscopic resection of the colon is dissection or embolisation of the artery leading to the tumor. There are dissections of the inferior mesenteric artery or superior rectal artery during resection of the rectosigmoid colon.

Methods

During resection of the rectosigmoid colon we perform dissection or embolisation of the superior rectal artery as the first step. Than we resect the rectosigmoid colon.

Results

74 procedures on the left colon and rectosigmoid colon were performed from January 1st, 2002 to May 31st, 2003 in the Hospital Podlesí. Complications included wound infections in 7 cases (9.4%) and failure of anastomosis in 2 cases (1.5%). The reason for this was ischaemia of the left colon during rectosigmoid resection. We had to perform a "second look" revision and left colectomy with a terminal transversostomy.

Conclusion

Dissection or embolisation of the vessels leading to the tumor area is the first step during malignancies of the colon. In case of the rectosigmoid tumor it is the superior rectal artery that has to be dissected or embolised. During strict dissection or embolisation of this artery ischaemia of the left colon with failure of the descendensrectal anastomosis occurred as a complication. Even a precise dissection of superior rectal artery can lead to ischaemia of the left colon. The condition of vessels – especially connections between middle colic artery – left colic artery – superior rectal artery is extremely important.

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STOMACH CANCER AS A COMPLICATION OF AN UP-SIDE DOWN STOMACH

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Background

The upside-down stomach is an extreme form of the hiatus hernia. It is caused by various factors, but slackening of the diaphragmatic hiatus and hanging structures of stomach are the elementary essential conditions. That is why we diagnosed this state especially in patients of higher age. These people also frequently suffer from other complicating diseases and states significantly limiting the possibility of operation or making an effective procedure totally impossible. For this reason it is necessary to examine a patient with upside-down stomach completely and to indicate the surgery after thorough preoperative discretion.

Case Report

The case report describes a case of a 77 years old female patient with upside-down stomach, complicated with the occurrence of stomach cancer and a serious lung disease. She was examined for anemia and a weight decrease 10 kg in 6 months. After several diagnostic procedures, the final diagnosis was the cardia tumor penetrating to the vicinal area of the duodenum and pylorus in the patient with the upside-down stomach. This complication of the upside-down stomach is quite rare in the world literature. Because of the extent of the tumor and associated internal diseases, it was not possible to indicate any surgery. The patient died from the total exhaustion of the organism after three months, nevertheless, afagia had not developed. No other complication implicating the upside-down stomach did appear.

Conclusion

The described case of the tumor in upside-down stomach confirms the known fact that a surgical department experienced in chest procedures should manage these extreme forms of hiatus hernia. The reason is that all complications of the disease or operation require a solution through a thoracotomy. It is even recommendable to let the patient, already in the stage of diagnostic process, consult in such department. It is necessary to examine a patient completely before the procedure, including examination of ventilation parameters, because the internal state and namely ventilation parameters can significantly limit the chest procedure.

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LAPAROSCOPIC – ENDOSCOPIC RENDEZVOUS RESECTION OF GASTRIC TUMORS

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Background

Endoscopic biopsies very often fail to provide the representative histological sample needed for further therapeutic decision. Submucosal and mucosal tumors of the stomach display a wide spectrum of histopathologic and prognostic characteristics.

Methods

Over the year 2002, 11 patients with gastric tumors underwent a combined endoscopic – laparoscopic local resection of tumors. The resected tumors were located on the anterior wall of minor and major curvature area of the stomach. Tumors located on posterior

wall were not included. Tumors located on the anterior wall underwent **laparoscopic wedge resection**.

Results

Laparoscopic resections were performed on 11 patients. The mean age was 61.3 years (36–83 years). Preoperative preparation included the endoscopy with biopsies and histology examination, ultrasound examination, computed tomography scan and endoscopic ultrasonography. After resection, the final immunohistological examination of the specimens showed gastrointestinal stroma tumors in 5 cases, 1 leiomyoma, 2 other benign neurofibrotic tumors and 3 musocal early gastric cancer. In all patients the surgical margins were tumor free, no lymphatic or venous invasion was encountered in pathologic specimens.

Conclusion

In cases of histopathologically unknown tumors preoperative and definitive examination of complete specimens provides the basis for further therapeutic decisions. The laparoscopic – endoscopic approach is considered to be a curative and minimally invasive for the resection of localized gastric tumors.

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LIMITING COLONIC POLYPS, LAPAROSCOPIC ONCOLOGIC RESECTION IN COOPERATION WITH GASTROENTEROLOGIST, ONCOLOGIST AND SURGEON

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Background

Limiting staging, size and localisation of colonic polyps have not always been a simple solution. We performed a retrospective study of indications and results of laparoscopic resections with lymfadenectomy for colonic polyps.

Patients and Methods

We have checked our patients with laparoscopic resections with removed, partly removed and unremoved colonic polyps from 1998. Pre- and postoperative staging, results and complications were compared.

Results

In the group of patients after complete endoscopic polypectomy (seven patients) we registered indications of invasive carcinoma in five patients and unclear basis of polyps in two patients.
Postoperative stagings were found in five patients without pathological changes and in two patients an invasive carcinoma at the place of polypectomy was found.
In the group of incomplete endoscopic polypectomy or by recidivation of polyps we found adenoma villosum with middle dysplasia in two patients, in six patients intramucosal carcinoma (TIS) was proved, and only in one patient no signs of pathology in specimen were found. With eight patients *only biopsies from polyps* were made because of multiple polyps, their size or location of polyps. Preoperative findings of invasive carcinoma were in two patients, intramucosal carcinoma in four patients and polyposis in two patients. Postoperative findings of multiple TIS were found in two patients, TIS in three patients and invasive carcinoma also in three patients.
Due to polyps we performed laparoscopic right hemicolectomy seven times, laparoscopic resection of sigmoideum seven times, laparoscopic low anterior resections eight times and two subtotal colectomies. We found suppuration twice, but no anastomotic leak nor exitus.

Conclusion

In 6 out of 24 patients with polyps pathologist did not find any pathology or place of biopsy. We proved TIS intramucosal carcinoma in eleven patients and five occurrences of invasive carcinoma. Two patients with polyposis had a middle grade dysplasia. No positive lymphatic nodes were found. The results supported indication of resection with lymfadenectomy in cases of problematic polyps.
The laparoscopic procedure offers a safe oncological method with the all well-known advantages of mini-invasive surgery.

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COLONIC STRICTURES INDUCED BY NONSTEROIDAL ANTI-INFLAMMATORY DRUGS

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Introduction

Nonsteroidal anti-inflammatory drugs (NSAID) are used extensively within the general population. It has become increasingly clear that NSAIDs may cause damage not only to the upper gastrointestinal tract but also to the small and large intestine. The phenomenon of strictures of the colon induced by NSAIDs is a newly recognized pathologic entity.

Methods

We report our experience with two cases of drug-induced colonic strictures as unexpected findings in patients being investigated for iron-deficiency anemia.

Results

We describe two women on long-term diclofenac therapy.
The first patient was a woman with multiple involvements of the colon endoscopically seen as diaphragm-like strictures of the ascending colon and severe anemia managed conservatively. Clinical outcome was favourable after discontinuing the NSAID and the patient experienced no further problems.
The second case presented diaphragm-like strictures of the left and transverse colon. A tight nonulcerated colonic stricture required hemicolectomy.

Conclusion

We compared our observations with case reports available in the literature. The etiological mechanism appears to be related to systemic and local toxicity. Most patients show symptoms suggestive of malignancy, namely anemia, obstructive symptoms, or weight loss. Pathologic changes are characterized by diaphragm-like strictures with submucosal fibrosis. Withdrawal of NSAIDs is the treatment of choice. In some cases surgery is necessary, with endoscopic pneumatic dilatation as an alternative. We suggest that a history of NSAID intake should be actively sought in patients displaying colonic symptoms.

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EXTENDED LYMPHADENECTOMY WITH GASTRECTOMY IN EARLY STAGE GASTRIC CARCINOMA

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Introduction

There is no consensus regarding the therapeutic value of an extended lymphadenectomy to patients with gastric cancers. A prolonged survival has been reported especially in Japan. The use of the extended lymphadenectomy has been based on the fact that lymph node metastasis occurs in the early stage of gastric carcinoma.

Method

We started with extended lymphadenectomy by gastric carcinoma at the department of surgery of Atlas Hospital Zlin in the year 2000. We performed D 2 lymphadenectomy in 8 patients. We have encountered neither serious complications nor death. Nodes were examined by haematoxylin and eosin. Imunohistochemistry was not performed. The number of examined nodes was 153 (maximum 32, minimum 7, mean 19.1, median 18.5). Only one patient had positive nodes with five positive nodes.

Conclusion

Number of our patients is rather limited to draw any definite conclusion. However, we believe that the extended lymphadenectomy is as safe as the limited lymhadenectomy. Information about patient condition becomes more precise with the increasing number of examined nodes. This may lead to an improved survival.

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RISKS OF LAPAROSCOPIC SURGERY VS. ITS DIAGNOSTIC AND THERAPEUTIC BENEFITS

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The first laparoscopic surgery in the Czech Republic – cholecystectomy – was performed in 1991. This procedure for the treatment of cholecystolithiasis spread rapidly among surgical wards and gradually found its place in the surgical management of other diseases. Up to 84 % of those suffering from cholecystolithiasis and 60 % of appendicitis cases are treated laparoscopically. The method is successfully used in the diagnostics and treatment of abdominal emergencies, in traumatology, thoracic surgery, etc.

Assessment of the set of patients operated on with the miniinvasive technique over the last decade allows us to consider the risks as well as the benefits of the method.

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EFFECT OF BENIGN GIT DISEASE ON THE VALUES OF ICAM AND VCAM IN SERUM

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Introduction

The aim of the study was to evaluate the normal values of adhesive molecules ICAM –1 and VCAM–1 in serum and to elucidate mechanisms through which may the benign GIT disease affect the levels of adhesive molecules.

Methods

Adhesive molecules ICAM and VCAM in serum were analysed by using ELISA assay (Medsytem Diagnostics Austria) in a group of 22 healthy controls and 35 patients with benign GIT disease. The values of adhesives molecules were correlated with tumor markers CEA and CA 19–9.

Results

A group of healthy controls (n = 89) had the following median values for particular tumor markers: VCAM–1 358; ICAM–1 206; CEA 1.2; CA 19–9 10.5
A group of patients with chronic GIT diseases (n = 80) had the following median values for particular tumor markers: VCAM–1 592; ICAM–1 245; CEA 1.3; CA 19–9 8.6
A group of patients with acute GIT diseases (n = 80) had the following median values for particular tumor markers: VCAM–1 1108; ICAM–1 420; CEA 2.4; CA 19–9 23.2
Values of VCAM–1 and ICAM–1 in serum in the group of patients with acute GIT diseases were significantly higher ($p < 0.01$) than in healthy controls and patients with chronic GIT diseases.

Conclusion

The authors determined the normal values of adhesive molecules ICAM and VCAM. The data demonstrate that some acute and chronic benign GIT diseases, e.g. portal-systemic encephalopathy, acute appendicitis or ulcerative colitis, affect the values of adhesive molecules in serum.

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CELL ADHESIVE MARKERS IN THE PROCESS OF COLORECTAL CARCINOMA METASTASISING

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Introduction

Early diagnosis of tumor disease progression is a prerequisite for intervention. One of the diagnostic possibilities is assessment of adhesive molecules because their monitoring plays a significant role during detection of distant metastases inception.
The aim of the study was to assess adhesive molecules levels in the serum of colorectal carcinoma patients for the purpose of early diagnosis of metastatic process.

Methods

Adhesive molecules ICAM-1 and VCAM-1 were assessed in 93 colorectal carcinoma patients and in 89 healthy controls by ELISA methods. Results obtained from both groups were correlated with the tumor markers CEA and CA 19–9 using IRMA methods.

Results

Median values for particular tumor markers were as follows:
Group of healthy controls (n=89): VCAM-1 358; ICAM-1 206; CEA 1.2; CA 19-9 10.5
Group of patients with no evidence of a disease (n = 80): VCAM-1 792; ICAM-1 299; CEA 1.6; CA 19-9 8.3
Group of patients with metastasis progression regardless of localisation (n=51): VCAM-1 1272; ICAM-1 587; CEA 40.3; CA 19-9 60.7
Group of patients with metastasising into liver (n = 40): VCAM-1 1270; ICAM-1 576; CEA 56.4; CA 19-9 109.9
Group of patients with metastases of localisation other than liver (n = 11) VCAM-1 1095; ICAM-1 426; CEA 12.0; CA 19-9 20.1
In case of liver metastases the following sensitivities for CEA 90 %, CA 19-9 83 %, ICAM-1 87 %, and VCAM-1 93 % were obtained with recommended specificity of 95 %.

Conclusion

Median values in patients with metastasis progression differed significantly from both healthy controls ($p < 0.05$) and from remission values ($p < 0.05$). Elevated levels of adhesive molecules VCAM-1 and ICAM-1 are very specific for the early detection of metastatic process of colorectal carcinoma, especially with metastases into the liver. Their sensitivity is comparable or higher than in case of recommended tumor markers.

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CAN WE IMPROVE DETECTION OF LYMPHONODES AFTER SURGERY FOR COLORECTAL CANCER?

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Key words: Lymph node-revealing solution / Colon / Carcinoma

Introduction

Problem of adequate treatment of colorectal cancer is not only a problem of the quality of surgical lymfadenectomy. Adjuvant therapy after surgery requires detection of lymfonodes in the specimen. Determination of metastatic lymph moces in colon cancer is essential for determination of the disease stage and selection of appropriate therapeutic modalities. However, very small lymph nodes can easily be missed during routine examination.

Aim

The aim of this study is to describe an easy technique for detecting tiny nodes in colonic specimens.

Methods

Fifteen problematic cases, in which an unsatisfactory number of lymphnodes was found by the traditional method, were investigated. The entire mesocolonic fat was immersed for six hours in a lymph node revealing solution (LNRS) composed of various traditional fixatives and fatty acid solvents. After six hours, the lymph nodes were noticeable as white, chalky nodules on the background of yellow fat. They were then excised, processed, and stained.

Results

Total number of lymph nodes found by the traditional method in the 15 cases investigated was 75. Using LNRS 150 additional lymph nodes, measuring from 0.5 to 7 mm in largest diameter, were found. Of two cases in which no lymph nodes were found by the traditional method, one became N1 and the other N2. Of 13 cases initially classified as NO, four became Nl; of four cases initially classified as Nl, two became N2 after LNRS. Upstaging from N0 occurred in eight cases.

Conclusion

LNRS is an easy, rapid, and inexpensive technique for detecting very small lymph nodes. These may contain metastases, a fact that changes the stage of disease and influences the mode of therapy.

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DISTRIBUTION OF SEPARATE TYPES OF ANEMIA AT THE 2ND INTERNAL CLINIC IN OLOMOUC UNIVERSITY HOSPITAL

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Introduction

Anemia presents one of the most frequent pathological laboratory parameters, which we can distinguish either as a first sign of disease or as an accidental sign. We meet with every basic type of anemia in our gastroenterological practice and these are characteristic for various diseases and various stages of disease.

Aim

– to evaluate whether the spectrum of anemias encountered falls within the area of specialisation at the II. Internal clinic
– to create an algorithm of examinations leading to a faster diagnosis of the type of anemia from the gastroenterological point of view, especially acute and chronical bleeding into gastroenterological tract.

Methods

In a group of 800 randomly selected patients who were hospitalised at our clinic during the first half of year 2002 and whose anemia was typed as normocytary, microcytary or macrocytary. We used the following laboratory and imaging methods: Fe ferritin, Fe bin. cap., B12, ac.fol., ELFO, aPTT, Quick test, USG, gastroscopy, coloscopy, irrigography, sternal puncture, etc., to recognise the etiology of a particular anemia.

Results

– anemia was demonstrated in 163 patients (20.3 %)
– ratio male: female 90 : 73
– age: 19–39 years 15 patients (9.2 %)
  40–69 years 69 patients (42.3 %)
  70–94 years 79 patients (48.5 %)

1) Normocytary anemia – 76 patients (46 %)
   In this group of patients the following reasons for anemia were identified: bleeding into upper part of GI tract – 32 cases (42 %), malignity of GI tract (gaster, biliary duct, large intestine) – 11 cases (14 %), and eight patients (10 %) suffered from bleeding into GI tract because of hepatopatia. Subsequent group presents five cases (6 %) of anemia at IBD and four cases (5.2 %) of diverticulosis of large intestine. Seven patients (9.2 %) had normocytary anemia by CHRI based on DM. Another group of seven patients (9.2 %) with normocytary anemia had malignity in a different part of the body and finally two cases with anemia because of chronic diseases.
2) Microcytary anemia – 52 patients (32 %)
   The first cause was bleeding into the upper part of GI tract – 12 cases (23 %), and the second cause was malignity of GI tract – 11 cases (21 %). Nine patients (17 %) suffered from microcytary anemia at IBD. Polyps of stomach, large intestine and biliary duct caused microcytary anemia in seven cases (13.5 %). Six cases (11.5 %) had diverticulosis of large intestine and six patients (11.5 %) were not examined for their health condition or for their dissent.
3) Macrocytary anemia – 35 patients (21 %)

This group can be divided into hepatal and non-hepatal etiology. Hepatopathic macrocytary anemia occurred in 19 cases (54 %) mostly because of cirhosis hepatis which was confirmed with laboratory finding and imaging methods. Hematological anemia was present in four cases (11.5 %) – myeloproliferation and dysplasion. In further nine cases (26 %) the lack of vit. B12, ac. folicum, and thyreopathy were diagnosed. Three patients (8.5 %) were not investigated for their health condition or for their dissent.

Conclusion

The spectrum of anemias falls within the gastroenterological specialisation of our clinic. Gastroenterological causation was found in 124 cases (76.1 %) meaning the etiology of anemia should be evaluated at a gastroenterological clinic. Optimum approach to make gastroenterological causation of anemia includes: 1. anamnesis, 2. clinical examination, 3. laboratory tests (type of anemia, hemocult, FW, Quick, Fe, Ferritin, Fe bind. cap., B12, Ac. fol., ELFO, hepatal tests, cholesterol), 4. USG, 5. gastroscopy, 6. coloscopy, 7. sternal puncture, 8. ERCP, and other examinations.

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GASTRIC BANDING – EFFECTIVE LONG-TERM WEIGHT LOSS CONTROL

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Background

Laparoscopic gastric banding is currently the most common bariatric surgical procedure for treatment of severe obesity. Obesity is a chronic most often metabolic disease. Where conservative therapy has failed, there is the chance for bariatric surgery. One current bariatric method is that of gastric banding.

Patients and Methods

From 1993 to 2002 in our department 657 (85 % female and male 15 %) morbidly obese patients were operated on with gastric banding with very good weight-loss long-term control. Mean age was 36.8 (21–60), mean height was 164.6 cm (145–196), mean weight was 130.7 kg, and mean BMI was 48.5 kg/m^2.

Results

In 93 % of GB cases we used a nonadjustable band (polyester silk) and in 7 % of cases we used the SAGB (silicon with port of titanium). The mean weight-loss during the 24 months after GB was 39.9 kg and mean low of BMI was 13,8 kg/m^2. Percentage excess weight loss (% EWL) was – 61 % or percentage excess body mass index lost (% EBL) was – 49.8 % over two years. Slippage of anterior gastric wall proved to be the principal long-term postoperative complication in 5.1 % of cases. Other complications included: migration of GB in 0.9 %, bleeding from peptic ulcer in 0.4 %, port infection in two cases, and port dislocation in one case. The band was removed in 6 % of cases without re-banding or using other bariatric methods.

Conclusion

Laparoscopic gastric banding is a very safe and effective method for long-term weight-loss control in morbidly obese patients. Weight loss over 24 months was satisfactory. The main advantage of this method is its reversibility and opportunity of re-banding.

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HEMORON – MINIINVASIVE TREATMENT OF HEMORRHOID DISEASE AND ITS USAGE IN OUTPATIENT DEPARTMENTS

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Aim

To present evaluation of treatment results gained at the private surgery department in Červená Voda between 2000 and 2002.

Patients and Methods

501 patients were treated for disorders of the digestive system motion over the past three years. 411 patients, suffering from hemorrhoids of I.–IV. stage, were treated with the Hemoron unit. 1020 treatment sessions were performed altogether. 200 patients participated in an inquiry aimed at both the detection of subjective evaluation during the treatment session itself and after the treatment procedure.

Results

90 % patients treated with the Hemoron unit reported a significant improvement. The sample included a relatively large group of patients suffering from stage IV hemorrhoids who refused the more radical treatment proposed and were recommended for repetitional treatment procedure. No complications were recorded. Only one patient was unsatisfied with the treatment. In 12 patients the disease was diagnosed as rectal carcinoma.

Conclusion

The Hemoron method is painless to patients and safe-to-use for doctors with a high success ratio and improvement of patients' life quality without the necessity of invasive operations. The method, enabling painless ambulatory treatment, helps to breach the barrier of fear and thereby contributes to examination of a greater number of patients suffering from digestive system motion disorders. At the same time it increases the probability of early diagnosis of rectal carcinoma, as we examine those patients whose disease had not been diagnosed, as they would not agree to apply for the surgical treatment.

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INDICATIONS, TECHNIQUE AND COMPLICATIONS IN AMBULATORY PROCTOLOGY

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Ambulatory proctology is to date a very underestimated discipline, mostly beyond the interest of "big surgeons". However, it is a very important field owing to the incidence of proctological afflictions and the severe social consequences of their inappropriate diagnosis and treatment.

We stress conservative and semiinvasive treatment for hemorrhoids, anal thrombosis and other anal pathologies.
After analysis of our personal experience with 5296 patients, who have received 13429 rubber band ligations, we suggest that more than 90 % of cases can be treated without surgery.
The other outpatient procedure is management of anal thrombosis (personal experience with 382 anal thromboses). This pathology is very easy to treat when treated properly.
As to anal fissures (personal experience with 421 patients) we stress a step-by-step therapy focusing on dilatation therapy, which is cheap, safe, but time consuming.
We also mention other anal pathologies, which can be treated by means of modern proctology (hidrosadenitis analis, anal fistulas). An increasing number of proctological diseases can be treated on an outpatient basis.

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DOES THE CHRONIC APPENDICOPATHY REALLY EXIST?

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Background

Existence of chronic inflammation of the appendix has been discussed for more than 100 years. There are many causes of right down abdominal quadrant pain (gynaecological, urological, Crohn disease, colitis ulcerosa, and neurological etc).
According to histopatological examinations, chronic appendicitis seems to be a very rare congenital disease; the incidence in population is less than 1 % and is mostly asymtomatic.
Recidival appendicitis, whose clinical symptoms are very similar to chronic appedicitis, presents almost 10 % of all appendicopathies. In the histological point of view there are no significant differences between chronic and recidival appendicitis. Major histological stages of chronic inflammation are fibrosis, obliteration of lumen and reduction of lymphatic tissue, which are also described in the tissues examined for recidival appendicitis.

Objectives

Retrospective evaluation of the group of patients operated in the interval of last 12 years for chronic pain in the right down abdominal quadrant. The group consisted of 146 patients (male 38, female 108). Laparoscopic exploration and appendectomy was performed. Histological examination described the obliteration of lumen and massive fibrosis as the signs of chronic inflammation in 80 %.
Patients were asked by retrospective question study.

Results

66 % of patients reported that the symptoms completely disappeared, on the other hand 13 % reported, that the operation was absolutely ineffective and the symptoms remained unchanged.

Conclusion

Laparoscopic exploration and appendectomy seems to be an optimal operation strategy, when the other causes of right down abdominal quadrant pain are eliminated.
The appendectomy brought a great benefit to 66 % operated patients.
According to our judgement the main cause of right down abdominal quadrant pain is in recidival appendicitis.

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LAPAROSCOPY AND THE ACUTE ABDOMEN

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Background

The first experiment with laparoscopy was performed in 1901. Since that time laparoscopy has gradually developed. First laparoscopic appendectomy was performed in 1981 (Semm), first cholecystectomy was performed in 1987 (Mouret). In present days, laparoscopy became an alternative to classic open surgery not only in elective operations, but also in solution of acute abdominal cases. Over the last five years laparoscopy was performed in 343 acute abdominal cases in our surgery department. Appendectomy was performed in 255 cases, cholecystectomy for acute cholecystitis in 52 cases, perforeted ulcus of GD was laparoscopicaly treated in 21 cases, resection of Meckel diverticl 4x, st. ileosus in 6 cases, laparoscopic drainage of abscessus in abdominal cavity was performed twice. There is no significant increase of complications compared to open operations.

Conclusion

Laparoscopy presents an alternative to classic open surgery in solution of acute abdominal cases. The major advantages of laparoscopy are lower postoperative pain., better cosmetic effect, laparoscopy shortens the time of hospitalisation and reconvalescence.

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OCCASIONS OF TRANSANAL ENDOSCOPIC MICROSURGERY

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Incidence of colorectal carcinoma has been increasing. The vast majority of malign tumours are formed on the bases of malignisation of polyps. Villous polyps and low-grade malign tumour (tumour in the upper and middle third of rectum) represent a serious therapeutic problem. While the neoplasms in the lower third of rectum and in colon are accessible to conventional surgical therapy (transanal and transabdominal access), lesions in upper two thirds of rectum are possible to treat by means of extensive access (low anterion resection, amputation of rectum).
Transanal endoscopic microsurgery (TEM) was found together with the progress of endoscopic techniques, laparoscopy and development of laparoscopic instruments following conventional endorectal surgery. It became an important part of the colorectal centres nowadays.

Indication for TEM are benign polyps as well as tumour in T1, T2 stage and may be used in stages with greater progress in high-risk patient and patients refusing stomia.
We performed totally 39 transanal microsurgical operations in our clinic from March 2002 to March 2003, including 25 (64 %) men and 14 (36 %) women. The tumour of rectum was indication in 34 (74 %) cases. 27 (69 %) of patients had benign polyp and 7 (18 %) patients had malign tumour. 3 (8 %) patients were indicated to an operation of the stenosis of rectum following the previous operation, 2 (5 %) patients were treated for bleeding from tumor of rectum using the rectoscope. Complications occurred in 3 (8 %) cases. Two patients had a bleeding that was treated without necessity of operation, and one patient had a pararectal abscess, where it was necessary to perform temporary stomia.
Transanal endoscopic microsurgery belongs to miniinvasive methods. It enables operations of middle and upper third of rectum. Stereoscopic optics gives perfect view of the operation field. The number and type of complications (compared to conventional surgical procedures) is incredibly lower when TEM is used. It saves the patient with low-grade malign tumour from a large mutilating operation.

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THE TREATMENT OF ADVANCED CANCER OF THE STOMACH CARDIA

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Key words: Stomach cardia cancer / Late diagnosis / Inoperable finding / Endoscopy / Self-expandable stent

In spite of constantly increasing diagnostic possibilities for patients with carcinoma of aboral esophagus and stomach cardia, many people come to see their physician already in advanced stage of this disease. Diagnosis is done very quickly, but the resulting information qualifies the patient as inoperable. Paliative treatment is therefore suggested. Main task for surgeons is to improve the quality of life of these patients. The best procedure seems to be the endoscopic leading of self-expandable esophageal stent. Relatively non-invasive and safe method exists with rare complications and an immediate good result. The oncological treatment continues with this therapy.

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SCREENING FOR COLORECTAL CARCINOMA IN THE REGION OF FRÝDEK-MÍSTEK IN THE PERIOD FROM 1998 TO 2001

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Background

In 1997, the Czech republic recorded the highest occurrence of colorectal carcinoma (CRC) in its history with 73.5 cases per 100 000 inhabitants. A national program for prevention was conceived and based on evidence provided by domestic and foreign controlled studies and issued as Mandatory Recommendations For Effective Preventive Medical Care in 2001. Individual risk is assessed based on family background and personal history. High-risk groups include patients with long lasting ulcerative colitis, previous colorectal cancer, previous adenomas, familial polyposis, HNPCC, familial colon cancer and female genital cancer. The average risk group includes patients older than age 50.
A variety of options are available for screening the average-risk individuals. This includes **faecal occult bleeding test (FOBT)**, recommended in the Czech republic, FOBT+ flexible sigmoideoscopy, colonoscopy and double contrast barium enema. A diagnostic process is indicated for individuals with a positive FOBT or with adenoma revealed by flexible sigmoideoscopy. In such cases colonoscopy should be preferred.

Patients and Methods

The results of colorectal carcinoma- screening project in the region of Frýdek-Místek for the period of 1999–2001 are presented here. The target population was represented by 147 000 people covered by regional hospital, with 39 000 of them older than 50.

Results

A total of 3113 patients representing 8 % of target population were checked with FOBT. Of the 226 positively tested patients 163 (72 %) were referred to colonoscopy. Of the 225 patients diagnosed with CRC, nine cases (4 %) were detected using FOBT (stage A–6, B–1,C–1, unstaged–1, according to Dukes).
Of 1000 people tested, a factor of 2.9 patients with carcinomas and 12.5 patients with adenoma polyps were diagnosed, for 7.3 % test positivity. A shift to detection in earlier stages of the disease was noted ($p = 0.05$). 49–53 % of the patients operated on had their tumors in stage A or B according to Dukes, and 13–17 % increase over the year 1998. This shift was evidenced especially due to the program that educated patients and increased physician's awareness of the disease.

Conclusion

Screening for colorectal carcinoma in the region of Frýdek-Místek city has significantly shifted the detection to earlier stages of the disease with better prognosis and lower treatment cost. The main reason for this appears too is education of patients and primary care physicians.

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ARE SMALL BOWEL TUMOURS RARE AMONG CZECH POPULATION?

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Background

Small bowel tumours account for only a small percentage of gastrointestinal tumours, but their prognosis as such is one of the worst. Their frequency is estimated to be about 3–7 %. Two thirds of them are malignant and manifest themselves by bleeding and symptoms of obstruction. The most frequent malignities of small bowel are carcinoids, carcinomas, lymphomas and leiomyosarcomas. Ninety percents of carcinoma are within the reach of push enteroscopy. The aim of study is to assess, whether enterocopic diagnostics of small bowel tumours is of fundamental or only marginal importance. The figures related to the occurrence of small bowel tumours in our country have not been published to date.

Patients and Methods

131 patients / 82 males and 29 females underwent push enteroscopy from February 2000 to May 2003. The median age of all patients was 50.6 years within the range of 19.4 (49.2 ± 19.2 in males, 53.6 ± 19.4 in females). 16 tumours have been identified with secondary malignities in 5 cases. Overtube was used in half of procedures related to tumours

Results

There were identified 11 (7 males, 4 females) primary tumours in our set. The suspicion of them was established in 20 cases (15.26 %) and confirmed in 55 %. We have revealed 3 carcinomas (2 in jejunum, l in duodenum) in 3 males, l enteritis associated T cell lympfoma in l male, 2 adenomas of jejunum (l male and 1 female), 3 gastrointestinal stromal tumours (GIST) in 3 males, l cystic lymphangioma in female and l unidentified benign polyposis in female. All patients with carcinomas were within age under sixty at the time of diagnosis. They underwent the surgery successfully. 3 GISTs were surgically resected. Primary gastrointestinal lymphoma was at advanced stage for effective medical or surgical treatment. Adenoma were accessible to endoscopic polypectomy

Conclusion

Our set is not numerous. Nevertheless we assume the occurrence of small bowel tumours not to be of marginal importance. Relevant problems require setting of diagnostics algorithm and follow- up involving push enteroscopy and capsule enteroscopy as well.

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CARCINOMA OF THE APPENDIX IMITATING SEVERE ACUTE ABDOMINAL DISEASE

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Introduction

Primary neoplasms of the appendix are not common diseases. Most appendiceal tumors are carcinoids[1]. Carcinomas of the appendix vermiformis are very rare and seldom suspected before surgery. Less than one half of cases are diagnosed intraoperatively[2].
The purpose of the article is to demonstrate a typical clinical course of this rare entity in two cases reports and emphasize its treatment principles.

Clinical presentation

Two patients with appendiceal carcinoma were operated on in the last year at the Department of Surgery of Charles University Medical School Teaching Hospital in Hradec Králové. The first patient, a 67-year-old woman, had been suffering from alternative diarrhoea or constipation for two years. An endoscopic examination revealed two benign polyps in the hepatic flexure and in the coecum. She was followed up and finally she underwent an appendectomy. The second patient, a 55-year-old man, was admitted with suspicion of acute appendicitis and operated on. An appendectomy was performed.
Appendix carcinoma was diagnosed in both cases by histological examination. The patients were recommended for right hemicolectomy and adjuvant chemotherapy.

Discussion

The typical prevalence of appendiceal carcinoma is in middle and old age. However, the same diagnosis has been very rarely reported in young people as well as in children[3]. This is the reason why all resected specimens should be examined by histology.
Clinical presentation is usually non-specific. In 9.5 % of cases appendiceal cancer is an incidental finding by histological examination after appendectomy. More commonly, in 49 % of cases, appendiceal cancer imitates clinical presentation of acute appendicitis[4]. Some female patients are diagnosed as suffering from a gynaecological disease.
Preoperative diagnosis is difficult. If preoperative suspicion of appendiceal cancer exists, the histological examination of frozen section is recommended. When the result shows malignancy, right hemicolectomy should be performed. If appendiceal cancer is diagnosed after primary appendectomy by the following histology, the secondary right hemicolectomy is necessary.

Conclusion

Although appendiceal carcinoma is a rare disease, it is necessary to suspect this entity especially in the middle and old age patients. Correct histological diagnosis and proper treatment may improve prognosis of this malignancy.

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THE 3D ENDOSONOGRAPHY IN THE NEOPLASTIC DISEASE OF THE ANORECTUM

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Purpose

The aim of the study was to evaluate the significance of the 3D anorectal endosonography in diagnosis of anorectal tumors.

Material and Methods

The 3D anorectal endosonography is considered a technique that allows precise and reliable examination of anorectum. Specificity and sensitivity of the method is comparable with CT and MRI. Sensitiveness of the picture 0.1 mm is reached by using a specific probe with 10 MHz working frequency. The other improvement leading to better accuracy of morphological examination is 3D reconstruction. Endorectal ultrasound (ERU) shows a five-layer image of the intact rectal wall. In T0 tumors, a benign lesion is confined within the second hypo echoic mucosa layer. T1 tumors disrupt the hyper echoic sub mucosa layer. T2 tumors infiltrate the muscularis propria (the fourth hypo echoic layer). T3 tumors invade the hyper echoic perirectal fat and T4 tumors affect the adjacent structures. The classification of anal cancer is very similar: T1 tumors are confined within the subepithelium, T2 lesions invade only internal sphincter, T2b lesions penetrate into the external sphincter, T3 lesions grow through the sphincter complex into the perinatal tissues, and T4 lesions invade the adjacent structures.
Overall, the accuracy of 3D anorectal endosonography in the detection of tumor infiltration is 80–97 %. ERU is superior to MRI and CT in early tumors. The minor disadvantage of ERU is that the transducer cannot pass structuring tumors. Lymph nodes from 3mm can be detected by EUS. The technique has an overall accuracy 70–88 % for detecting lymph nodes involvement. To distinguish the difference between inflammatory reaction and tumor invasion in lymph nodes is difficult.

Conclusion

The examination by ERU has been used since the year 2000 in the 2nd Department of Surgery at the Palacký University. 212 patients were examined with 42 endosonographies positive for tumor and 15 positive for anorectal polyp. This method is crucial for determining the diagnosis and the assessment of the stage of the tumor.

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ACCOUNT OF THE 3D ENDOSONGRAPHY IN DIAGNOSTIC PERIPROCTAL FISTULAS

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Purpose

To assess the usefulness of anorectal endosonography in diagnosis of periproctal fistulas

Material and Methods

From August 2000 18 patients were investigated for periproctal fistula by using clinical examination, X-ray fistulography, anorectal endosonography, and 3D imaging. Rotating 10 MHz endosonic probe for anorectal examination (BK 1850) was employed for examination with 3D module L3Di 2000 for image reconstruction. For enhancement of ultrasound imaging we used hydrogen peroxide instillation into the fistula after cannulation of external orifice. We evaluated the length of fistula, routing, position, and relation to sphincters and communication to anorectum. All results were reviewed with operative finding.

Results

3D anorectal endosonography of the periproctal fistulas gives more accurate information about the routing of fistulas and relation to sphincters as compared to X-ray fistulography. 3D anorectal endosonography also demonstrates localization of the periproctal abscess and fluid collection more exactly and allows measuring of their volume.

Conclusion

We consider the anorectal endosonography to be more valuable and more useful then X-ray fistulography.