

ORIGINAL PAPERS

An Epidemiological Study of Gastric Cancer in the Adult Population Referred to Gastroenterology Medical Services in Romania – a Multicentric Study

Daniela Dobru¹, Oliviu Pascu², Marcel Tanțău², Cristian Gheorghe³, Adrian Goldiș⁴, Gheorghe Bălan⁵, Felicia Coman⁶, Alexandru Frățiciu⁷, Eugen Dumitru⁸, Eftimie Miulescu⁹, Adrian Săftoiu¹⁰, Vladimir Bacarea¹¹

Prevalence and Distribution of the Colonic Diverticulosis. Review of 417 Cases from Lower Silesia in Poland

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Ultrasound Assisted Liver Biopsy for the Staging of Diffuse Chronic Hepatopathies

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ORIGINAL PAPERS

An Epidemiological Study of Gastric Cancer in the Adult Population Referred to Gastroenterology Medical Services in Romania – a Multicentric Study

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Abstract

Aim. The Romanian Society of Digestive Endoscopy proposed a multicentric study to evaluate the prevalence of gastric cancer in the adult population referred to gastroenterology medical services, and also the demographic features of this pathology.

Methods. The study was carried out over the period 1 January 2003 – 31 December 2003 in 11 academic centers in Romania, specialized in gastroenterology, with a uniform national distribution (all areas in the country were represented) and with adequate diagnostic and therapeutic facilities. All centers used identical definition criteria and reported the data using the same protocol and a Microsoft Excel database.

Results. During the study period, 640 cases of gastric cancer were reported. In the first stage, the prevalence in each geographical region was calculated. The national prevalence of gastric cancer in the population referred to gastro-intestinal endoscopy services was 2.9 per 100,000 inhabitants over 18 years of age. The demographic data of the studied group were the following: 66.4% men, 33.6% women, 51.7% urban population, 48.3% rural population, mean age 63.07±12.10 years. The most frequent indications for upper digestive endoscopy were: dyspepsia, weight loss and appetite. 88% of patients had no history of disease with a high risk of

gastric cancer. The majority of patients (95.5 %) had advanced gastric cancer at the time of diagnosis, located in the gastric body (40.1 %) and in the antrum (33.8 %). According to Borrmann's classification, 31.4% had type I fungating gastric cancer and 32.1% had type III ulceroinfiltrative gastric cancer. According to the Lauren classification, the most frequent histological type was intestinal adenocarcinoma (63.8 %). Early gastric cancer was found in 4.4% of patients.

Conclusions. The prevalence of gastric cancer in the population referred to digestive endoscopy services in Romania is 2.9%, with relatively wide variations at a national level. The study confirms the fact that Romania is a country with a low prevalence of gastric cancer, in accordance with the literature data published for the south of Europe.

Key words

Gastric cancer - prevalence – pathology – Lauren's classification – Borrmann's classification - incipient gastric cancer

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Prevalence and Distribution of the Colonic Diverticulosis. Review of 417 Cases from Lower Silesia in Poland

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Abstract

Background. The prevalence of colonic diverticulosis increases with age and is the most common pathology of the large bowel in the elderly. Studies of the frequency of colonic diverticulosis are performed in necroptic, radiological and endoscopic surveys.

Aim. The assessment of the prevalence and distribution of colonic diverticulosis evaluated with barium enemas.

Material and methods. 1,912 consecutive barium enemas examinations, performed between 1999-2002 were reviewed. The patients were 1,228 females and 684 males (mean age 55.4 yrs).

Results. Diverticula were observed in 21.7 percent (417) of the patients (279 females /mean age 64.1/ and 138 males /mean age 64.5 yrs). The prevalence of diverticulosis among females was 22.7 per cent and among males 20.2 per cent. The frequency of diverticulosis in patients aged 30-39 years was 5.3 per cent, 40-49 years – 8.7 per cent, 50-59 years – 19.4 per cent, 60-69 years – 29.6 per cent, 70-79 years – 40.2 per cent, and in those aged over 80 years it was 57.9 percent.

Conclusions. Diverticular disease of the colon is a significant problem in elderly patients, both

females and males. The most common occurrence is in the sigmoid and descending colon.

Key words

Colonic diverticulosis - large bowel contrast examination- epidemiology

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Ultrasound Assisted Liver Biopsy for the Staging of Diffuse Chronic Hepatopathies

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Abstract

Liver biopsy is the most accurate method for the staging and grading of diffuse hepatopathies. In viral hepatitis staging is required in order to assess firstly if the patient should be treated or not and, secondly, to assess the prognosis. In alcoholic and non-alcoholic steato-hepatitis we only appreciate the prognosis by staging, because the therapy is the same.

In this study we analyze the experience of our centre in performing ultrasound-assisted liver biopsies in diffuse chronic hepatopathies. Between 1993-2003 we performed 1460 ultrasound-assisted liver biopsies, all on inpatients, in 93.8% of the cases for the evaluation of viral hepatitis. In the last few years we used sedation with midazolam i.v., the saturation of O₂ being recorded. In the 10 years of the study we encountered one major complication (haemo-peritoneum) (0.07%), treated by conservative methods. The minor complications we encountered, pain and discomfort, were always alleviated by minor analgesics. Vaso-vagal reactions were frequent before we started using midazolam (8.05%), but were no longer present after we performed sedation. None of the liver biopsies was followed by the death of the patient. In 1.37% of the cases we obtained inadequate liver specimens. We performed multiple passages in 0.96% of the cases.

In conclusion, ultrasound-assisted liver biopsy is still the “gold standard” of hepatologic evaluation, being a safe and accurate method for staging the diffuse chronic hepatopathies.

Key words

Ultrasound guided liver biopsy - grading and staging - diffuse hepatopathies - chronic viral hepatitis

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Progression of Liver Fibrosis in Blood Donors Infected with Hepatitis C Virus

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Abstract

Background/Aims. Chronic hepatitis by HCV is progressive towards cirrhosis, with variable rate. We evaluated the rate of fibrosis progression (RFP), risk factors associated with advanced fibrosis (F3 and F4), and estimated the evolution time to cirrhosis.

Methods. We transversely selected 142 blood donors infected only with HCV, with a known route of infection, submitted to liver biopsy at admission. RFP= ratio between stage of fibrosis (METAVIR)/estimated duration of infection in years. Non-parametric tests and logistic regression analysis, with significance level of 5% were used.

Results. Median RFP was 0.086 U/year (0.05 – 0.142). Ten patients had F4 and 25 had F3. Median RFP values were significantly different ($p=0.001$) from one age group at contamination to the others and ALT and AST levels. There were no differences in the expected evolution to cirrhosis between intermediate fibrosers (F2) and the rapid fibrosers (F3 and F4). The independent variables associated with advanced fibrosis were ALT (OR 7.2) and GGT (OR 6.4) and age at inclusion (OR 1.12).

Conclusion. This study suggests that RFP is extremely variable, it is exponential with age, and mainly influenced by host characteristics, especially age at contamination and possibly ethnical group. These asymptomatic patients had high percentage of fibrosis F2, F3 and F4.

Key words

Chronic hepatitis C - fibrosis progression - risk factors

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Acute Appendicitis in the Elderly Patient: Diagnostic Problems, Prognostic Factors and Outcomes

Abstract

Background and aims. Acute appendicitis (AA) in the elderly (over 60 year-old) continues to pose diagnostic problems and carries a high morbidity and mortality rate. The aim of this article is to present our experience and outcomes and to evaluate influencing factors.

Methods. During a period of 5 years 63 patients with a definitive pathological diagnosis of AA were retrospectively analyzed.

Results. The primary admission diagnosis was established correctly in 44 patients (69.8%). Nineteen patients (30.1%) required further diagnostic investigations and the mean time to final diagnosis was 26 hours. For 3 patients (4.8%), the final diagnosis was established intra-operatively. The perforation rate was 31.8% (20 patients). Thirty-eight patients (63.3%) had associated co-morbidities. The overall mean duration of pre-hospitalization symptoms was 2.7 days, 2.3 days for non-perforated cases and 3.8 days for perforated AA ($p=0.0025$). The complication rate was 34.9% (22 patients), complications occurred in 75% of perforated appendicitis and in 16.2% of non-perforated cases ($p=0.00001$). Overall mortality rate was 6.3%, 15% in the perforated case group and 2.3% in the group with non-perforated appendicitis ($p=0.0003$). The mean hospital stay was significantly longer for cases with perforated AA (7.2 days) than non-perforated AA (5.1 days) ($p=0.0056$), and for patients developing complications (9.6 days) than those without complications (5.6 days) ($p=0.0031$).

Conclusions. Advanced age adversely affects clinical diagnosis, the stage of the disease and the outcomes. Late presentation, delayed diagnosis, presence of perforation and co-morbidities are associated with a poor outcome from surgery.

Key words

Acute appendicitis - elderly - diagnostic - prognostic factors - outcomes

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No Effect of Short Term Ranitidine Intake on Diclofenac Pharmacokinetics

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Abstract

The pharmacokinetics of diclofenac sodium in healthy volunteers was evaluated to determine if previously repeated doses of ranitidine inhibited the metabolism of the non-steroidal anti-

inflammatory drug. Diclofenac sodium 50 mg (tablets) in combination with ranitidine 150 mg (tablets) were administered to 14 healthy human volunteers in a two treatment study design, separated by 5 days in which the ranitidine alone was administered in single p.o. doses twice daily. Plasma concentrations of diclofenac were determined during a 12 hour period following drug administration. Diclofenac plasma concentrations were determined by a validated RP-HPLC method. Pharmacokinetic parameters were calculated with compartmental and non-compartmental analysis. In the two periods of treatments, the mean peak plasma concentrations C_{max} were 1503.9 ng/ml (diclofenac alone) and 1742.5 ng/ml (diclofenac and ranitidine). The time taken to reach the peak, T_{max} , was 0.85 hrs, and 0.82 hrs, respectively. The areas under the curve (AUC₀₋₆) were 1479.9 ng.hr/ml and 1650.3 ng.hr/ml, respectively. Statistically insignificant difference was observed in these pharmaco-kinetic parameters of diclofenac sodium when administered alone or after 5 days of treatment with ranitidine. The experimental data did not suggest any consistent effects of ranitidine upon the pharmacokinetics of diclofenac sodium.

Key words

Diclofenac – ranitidine – pharmacokinetics - interaction

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REVIEWS

Signaling for Inflammation and Repair in Inflammatory Bowel Disease

Manuela G. Neuman

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Abstract

In patients with inflammatory bowel diseases (IBD) the immune system leads to the polarization of intestinal immune cells towards a T helper one (Th1) pro-inflammatory response. The immunologic factors intervene in intestinal homeostasis and initiate the development of intestinal mucosal inflammation. Cytokines, which are important regulators of inflammation and repair as well as leukocyte trafficking have become apparent as key immune molecules in the pathogenesis of IBD. In this review, recent advances in our understanding of the cytokine involvement in inflammation and repair in patients with ulcerative colitis (UC) and Crohn's disease (CD) are discussed. Knowledge of objective evidence of inflammatory activity may allow targeted treatment at an earlier stage to avoid the relapse, as well as assessment of new therapeutic strategies for maintenance of remission.

Key words

Crohn's disease - ulcerative colitis - inflammatory bowel disease - cytokine - Th1 response -

inflammation - cell adhesion molecule - apoptosis

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Living Donor Liver Transplantation and Hepatitis

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Abstract

Preliminary results indicate that living donor liver transplantation (LDLT) recipients infected with HCV develop earlier and more severe recurrence than their cadaveric counterparts. The mechanisms underlying this observation are unknown, but could include hepatic regeneration, differences in LDLT recipient demographics, immune homology between donor and recipient, or other factors not previously considered. The optimum clinical approach is to consider LDLT in HCV-infected recipients only as a life-saving procedure and to attempt to eradicate HCV before LT to prevent recurrent infection.

Key words

Living donor liver transplantation - viral C hepatitis - prevention

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HCV Carriers with Persistently Normal ALT Levels: not Too Much Healthy, not True patients*

Claudio Puoti

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Abstract

Approximately 30% of patients with chronic HCV infection show persistently normal alaninaminotransferase (ALT) levels. The majority of HCV carriers are females, and up to 40-50% of carriers harbor non-1 genotype, at least in western Europe. No association has been found between HCV type/viral load and the severity of liver damage. The prevalence of HCV carriers with normal liver seems to be very low (less than 20%). Liver disease is usually minimal/mild and fibrosis is generally absent or minimal, although the association of normal

ALT with cirrhosis or with hepatocellular carcinoma has been reported. In all studies, liver histology was, on average, significantly less severe in subjects with persistent normal ALT than with abnormal ALT. Although the majority of data seem to show that HCV carriers with normal ALT have mild and stable disease, with a favourable prognosis, several studies reported a significant progression of fibrosis in approximately 20-30% of the patients with ALT normality, and the development of hepatocellular carcinoma in some cases has been described, despite persistent ALT normality. Sudden worsening of disease with ALT increase and histological deterioration has been described after up to 15 years of follow-up.

Key words

Aminotransferases – HCV infection – prognosis - therapy

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CASE REPORTS

Education and Management of Patients with Familial Adenomatous Polyposis. Are we Making Progress? A Case Report

Adina Neagoe, Olimpia Chira, Teodor Zaharia, Carmen Cruciat

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Abstract

A 25-year-old male patient was admitted to our clinic for abdominal pain, diarrhea, intermittent rectal bleeding and weight loss. The family history revealed two deaths due to colorectal cancer (maternal grandmother and patient's mother). The colonoscopy showed hundreds of polyps throughout the colon, and an ulcerative rectosigmoidian tumor. The diagnosis was Familial Adenomatous Polyposis (FAP).

Colectomy with ileorectal anastomosis was performed. Histopathological diagnosis revealed moderately differentiated adenocarcinoma. Adjuvant chemotherapy was carried out. The patient had three brothers, without clinical symptoms. They had a colonoscopic examination for screening. Two of them were diagnosed with adenomatous polyposis - the first with classic FAP and the other one with the attenuated type (AFAP).

The diagnosis of FAP can be made on the basis of either clinical or genetic criteria. When the family history, clinical features, and pathological findings are classic, the diagnosis is straightforward. Screening and prophylactic surgery are effective to prevent colorectal cancer in patients with FAP. Lifelong regular surveillance is necessary to detect and manage extracolonic lesions.

Key words

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Primary Combined Intra- and Extra- Abdominal Actinomycosis. A Case Report

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Abstract

*Actinomycosis is an infrequent chronic progressive granulomatous and suppurative disease. This infection is caused by *Actinomyces israelii*, normally present in healthy individuals. We present a rare case of a combined intra- and extra- abdominal actinomycosis in a 50 year old female patient, with no underlying predisposing factors. The patient complained of a right lower quadrant pain. Although we first diagnosed a peri-appendiceal abscess, the CT scan suggested a right colon tumor. The patient underwent segmental colectomy and the histological examination of the specimen revealed colon actinomycosis. A review of the possible pathogenesis and therapeutic modalities is also presented.*

Key words

Abdominal and colon actinomycosis – antibiotics – surgery - colon inflammation - abdominal wall inflammation

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Hepatic Cirrhosis Associated with Arterial Pulmonary Hypertension

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Abstract

The association between hepatic cirrhosis and arterial pulmonary hypertension is mentioned in the literature. The authors report the case of a patient with hepatic cirrhosis, who developed in time an arterial pulmonary hypertension with a fatal outcome. They discuss the pathogenesis of arterial pulmonary hypertension in patients with hepatic diseases, and the therapeutic options in these patients.

Key words

Hepatic cirrhosis - portal hypertension - arterial pulmonary hypertension

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Duodenal Duplication. Is Ultrasound Appearance Enough to Confirm the Diagnosis?

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Abstract

A case of duodenal duplication is reported. It is a rare anomaly and is commonly discovered during infancy. Symptoms of partial obstruction dominate the clinical picture. Abdominal ultrasound (US) seems to be the best method to confirm the diagnosis especially when the two-layer pattern is present. In our case the radiological evaluation apart from US comprised plain film of the abdomen, upper gastrointestinal series and CT scan. The diagnosis of duodenal duplication made by US examination as well as by gastrointestinal series and CT scan was confirmed surgically. We consider that when at US the sign of two-layer pattern is present there is no need for further radiological evaluation for alimentary tract duplication.

Key words

Duodenal duplication - imaging- congenital anomalies - gastrointestinal tract - ultrasound

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CLINICAL IMAGING

Nuclear Medicine Dynamic Investigations of Diffuse Chronic Liver Diseases and Portal Hypertension

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Abstract

Radio-isotopic techniques may be useful in diagnosis and staging of chronic diffuse liver diseases. Liver angioscintigraphy (LAS) and per-rectal portal scintigraphy (PRPS) are at well discriminating portal hypertension (PHT), very early cirrhosis hemodynamic failure and compensatory arterialisation of liver perfusion. Supplied information is related to PHT, liver morphology and mesenchimal activity in liver, spleen and bone marrow. Correlation of LAS and PRPS may diagnose installing of PHT earlier than any actual morphologic imagistic method.

Our experience (after more than 300 PRPS and 500 LAS) suggests that PHT and portal-cave shunts (PCS) may be classified in five functional stages. These five patterns (types) are characteristic for portal dynamics, supporting disease staging and follow-up of evolution to cirrhosis. All five dynamics may be assessed by PRPS and LAS.

Scintigraphic techniques also explore portal thromboses, perfusion differences between the lobes of cirrhotic liver, betablockers effect in PHT, earliest stages of PHT, malignant tumours occurring on cirrhosis, the different characteristics of alcoholic liver comparing to viral etiology.

Key words

Portal hypertension - hepatitis - cirrhosis - portal-cave shunts - liver angioscintigraphy - per-rectal portal scintigraphy

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