successfully removed after ES. As for the remaining 6 patients: four were found to have a bile duct stricture and another two – gallstone pancreatitis. No serious complications as a result of ERC or ES were encountered. We didn’t carry out ERC due to the retained stones after LC over the studying period. Proposed decision tree for the evaluation and treatment of choledocholithiasis in a patient having LC is presented.

Both groups were comparable concerning age, weight and co-morbidity. The mean length of hospital stay was 17 days for LC group vs. 24 days in OC group (< 0.05). The other significant differences included morbidity (4% vs. 8%, p < 0.05), mean postoperative length of stay (8 vs. 13 days; p < 0.05). All OC group patients required postoperative intramuscular opiates and intravenous fluids, while 16% of LC group did not require any analgesia at all.

This study concludes that combined ES and LC in patients with complicated gallstone disease led to less complications, shorter hospital length of stay, and minimal use of postoperative analgesia. The combination therapy of ES and LC will be recommended for this kind of patients as a minimally invasive procedure.

1604 An Experimental Study on Diathermy Effects on the Bile Ducts
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Use of diathermy may be a possible cause of strictures on the common hepatic duct reported after laparoscopic cholecystectomy. In order to further elucidate this problem, we have used a Material and methods: Monopolar diathermy in anesthetized pigs. The diathermy was applied at standardised locations along the cystic duct, in the angle between the cystic duct and the hepatic duct, directly on the bile ducts before and after evacuating bile, and near a clip on the cystic duct. Three to twelve repeated applications of five seconds duration were given at each location. The temperature was measured at standardised locations on the anterior wall of the bile ducts immediately after each application with a T-thermometer giving the correct temperature within one second. A pilot series of seven pig and a standardised series of six pigs were used.

Results: Diathermy along the cystic duct did not increase the temperature above 5 degrees centigrades, and the mean temperature did not exceed 1.7 degrees in any application series. Diathermy directly on the bile ducts only induced increased temperature at the proximal part of the hepatic duct after application at its distal part (maximum 18 degrees, mean values < 4.5 degrees). Evacuation of bile did not influence temperature change. Diathermy applied directly into the common bile duct induced one event of 11 degrees temperature elevation, otherwise not above 4 degrees. Diathermy applied 0.5 cm away from the clip, induced increase of the temperature up to 11 degrees.

Conclusion: Diathermy applied directly to the bile ducts may induce unexpected rapid increases in the temperature of the duct walls. Application near a clip may increase temperature in the clip. Diathermy applied along the cystic duct revealed no significant increase in the temperature.

1605 Psychiatric Assessment of Patients with Gastrointestinal Distress. Concordance with Psychiatrist’ Recommendation
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Clinical problem: Patients with gastrointestinal distress that cannot be explained by somatic investigations, are often referred for psychiatric assessments. Despite this very few studies have addressed to which extent the recommendations given by the psychiatrists are taken into consideration by the treating gastroenterologist.

Material and method: During 1993, all patients with gastrointestinal distress referred to the Department of Psychosomatic Medicine were identified. We compared the recommendation for treatment given by the psychiatrist with the actual treatment recommended by the gastroenterologist.

Results: Preliminary analyses suggest that there is a striking discrepancy between the recommendations given by the psychiatrists and those given by the gastroenterologists following the psychiatric consultation.

Conclusion: The lack of concordance with the recommendations reduces the benefits of psychiatric assessments. The reasons are more related to physicians than patients.

1606 Evaluation of Electroencephalographic Data in Irritable Bowel Syndrome
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There are a lot of unresolved problems concerning diagnostic and treatment of bowel diseases. One of them – relation between irritable bowel syndrome and central nervous system.

The purpose of our investigation was evaluation of functional status of brain in irritable bowel syndrome (IBS) applying electroneuroencephalography (EEG) data.

We studied 42 patients (6 men and 36 women) with IBS. The diagnosis was made from clinical, endoscopic and histological features. There was no evidence of malignancy and inflammatory processes. Patients mentioned above underwent EEG with functional tests (photostimulation, hyperventilation).

Normal EEG was found in 7 (16.2%) patients, in 35 (83.8%) cases – different functional disorders of brain (desynchronisation and irritable cortex, abnormalities of neurodynamic function). Thus, our results indicate that the majority of patients with IBS has functional disorders of brain.

In conclusion, the treatment of patients with irritable bowel syndrome must be adequate, and functional state of brain should be taken into consideration.

1607 Increased Patients’ Anxiety Levels Before Endoscopic Procedures
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Endoscopic procedures are regarded as extremely invasive diagnostic means and it has been reported that subjects undergoing upper gastrointestinal endoscopy develop high anxiety levels. We evaluated whether colonoscopy has a similar stressful effect.

The anxiety status of 384 outpatients undergoing colonoscopy (COL) (134 subjects, 20–80 yrs, 78 males), gastroscopy (G) (137, 15–81 yrs, 70 males) and simple consultation (C) (91, 23–85 yrs, 51 males) was assessed by means of two self-administered questionnaires (Spielberg 1970) which assign independent scores (min 20 – max 80) to anxiety levels due both to patient personality (trait) and to transient emotional states (state).

Results. Trait Anxiety was similar in the three groups (COL: 41.3 ± 9.2; G: 42.6 ± 9.4; C: 43.5 ± 9.7) (M ± SD), being always higher in women than in men mean (p < 0.001, Student’s test). In women, State Anxiety levels before colonoscopy (49.4 ± 12.2) and gastroscopy (48.8 ± 10.8) were higher than before consultation (45.6 ± 10.3), but in men, a similarly significant milder psychological response was observed in the three situations (COL: 43.4 ± 11.2; G: 42.5 ± 9.8; C: 43.9 ± 8.8) (p < 0.02). No correlation was found between anxiety levels and age. Patients had the same anxiety levels at their first (60) or control gastroscopy, but lower state anxiety was observed at follow-up colonoscopies.

Conclusions. Patients undergoing endoscopic procedures, both gastroscopy and colonoscopy, develop a status of anxiety, particularly high in women. The memory of gastroscopy seems more unpleasant that that of colonoscopy. Adequate patient instruction and psychological assistance could be helpful in preparing patients for endoscopy.

1608 Psychoemotional Deviations and Dyspepsia
M. Mumma. Estonian Institute of Experimental and Clinical Medicine, Tallinn, Estonia

In the present research we have studied rural residents by a specially compiled questionnaire to detect gastrointestinal complaints. At the same time special attention has been paid to the following aspects: sleeping disorders, headache, general anxiety, longterm stress-situations in the past, contentment with family life, received treatment for neurosis in the past.

We have questioned 1316 rural residents; 500 of them had dyspeptic complaints. All these patients were investigated by endoscopy, ultrasonography etc. A.

Analyzing the results, appears, that the group of patients with dyspeptic complaints had more frequently psychoemotional deviations. 42.1% of dyspeptic persons (DP) and 26.9% non-dyspeptic persons (NDP) had longterm-stress-situations in the past; 37.9% of DP and 22.0% of NDP had sleeping disorders; 60.9% of DP and 37.7 of NDP had headache; 32.5% of DP and 14.3% of NDP had general anxiety – the differences were significant (p < 0.01).

There were no significant differences in contentment with family life and in previous treatment for neurosis.

It is evident, that gastroenterologists should pay more attention to psychoemotional deviations in rural residents with dyspeptic complaints, consulting the psychotherapist if necessary.
Globus Sensation – An Indicator of Oesophageal Motor Dysfunction


The globus sensation is often viewed as pointing at the presence of a conversion disorder or other psychogenicity. We studied prospectively 70 female and 22 male patients (age 22–71 years, median 43 years) referred consecutively to a psychosomatic clinic and presenting with the sensation as primary symptom. To evaluate whether morphological or other abnormalities underlay their sensation, all underwent a thorough history taking as well as otolaryngological, videokinematographic, and manometric examinations of pharynx and oesophagus. When indicated by history or findings, 24-hour pH-metry, scintigraphy of oesophageal bolus transport or gastric emptying, oesophagogastroscopy and other examinations were performed. The investigations revealed that 4 patients had a Zenker diverticulum (1 also oesophageal varices), 1 a velopalatal insufficiency, 1 an only partial opening of the upper oesophageal sphincter, 16 achalasia, 9 “hypocalasia”, 1 diffuse oesophageal spasm, 2 nutcracker oesophagus, 30 nonspecific oesophageal motor abnormalities, 17 abnormal gastroesophageal reflux activity (thereof 10 also oesophagitis), 6 massively delayed gastric emptying, 1 erosive antral gastritis, and 1 dental malocclusion. Of those having nonspecific oesophageal motor abnormalities, 1 patient had also malocclusion, 4 pharyngitis, 1 erosive gastritis and 2 delayed gastric emptying. Eleven patients suffering from one of the above motor disorders had also hyperplastic lingual tonsils, 3 had tonsillitis and 1 a cervical spondylolysis. The psychometric investigations showed no higher mean scores for depression, state and trait anxiety, hysteria and hypochondriasis than in general medical outpatients. Psychiatric interviews with 57 patients showed that 44 met DSM-III-R criteria for psychiatric disorders. However, neither this nor the psychometric findings bore any relationship to the presence, intensity or frequency of the globus sensation or the physical disorders detected. The results suggest that the globus sensation has to be viewed as an indicator of disordered oesophageal and possibly gastric motor activity and may be a precursor of less ambiguous symptoms.

Mianserin Treatment of Idiopathic Abdominal Pain

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In a double blind placebo controlled trial Mianserin was given for 8 weeks to 47 patients with a history of Irritable bowel syndrome or Non-ulcer dyspepsia of more than one year duration. There were no other psychiatric or chronic somatic disorders. All patients had been examined by specialist in gastroenterology.

Daily dosage was 120 mg Mianserin, and pain-response was measured by Visual Analog Scale and Clinical Global Improvement Scale. Other psychopharmacological or analgetic medication was not allowed.

75% of patients on Mianserin experienced major improvement, and 60% complete remission of previous symptoms. Mianserin patients experienced significantly better response than placebo patients with p-value less than 0.0001.

At follow-up 3 months after tapering of the drug, patients still experienced remission of symptoms if induced during treatment period.

Mianserin may be a pharmacological alternative for many patients with Irritable bowel syndrome or Non-ulcer dyspepsia.

Esophageal Strictures Complicating Intravical Sclerotherapy with Ethanolamine Oleate 5%

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We have studied the incidence of post-sclerotherapy esophageal stenoses, possible risk factors and stricture management. Ninety one pts, 69 men and 22 women, age range 18–82 years, with liver cirrhosis and history of esophageal variceal bleeding were included in the study. The pts were given intravically ethanolamine oleate 5%, 5–40 cc per session. Sclerotherapy was repeated in one week and then every month or immediately after bleeding, until closure of the varices. Nine out of 91 (9.9%) pts developed post-sclerotherapy esophageal stricture (<12 mm). Details of the sclerotherapy sessions and sclerostent amount are given in the following table.

<table>
<thead>
<tr>
<th>Stricture</th>
<th>Sclerotherapy sessions</th>
<th>Sclerostent amount</th>
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<tbody>
<tr>
<td>Group</td>
<td>Total per pt</td>
<td>Total</td>
</tr>
<tr>
<td>N = 9</td>
<td>30</td>
<td>3.3</td>
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<tr>
<td>N = 9</td>
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Six pts undergone one and 3 pts 2-5 dilatations with Savary-Gillard dilators, up to 15 mm, during a follow up of 6-12 months without any complication.

We conclude that approximately 10% of pts develop post-sclerotherapy esophageal strictures which can be managed effectively and safely with Savary-Gillard dilators. The amount of sclerostent given per session but not the total amount of sclerostent seems to be a risk factor for developing post-sclerotherapy esophageal strictures.

Patients with Diffuse Esophageal Spasm Show an Abnormal Esophago-Cardiac Inhibitory Reflex

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The esophagus may be involved in the genesis of some cardiac arrhythmias, spontaneous (i.e. "swallow syncope") or induced by structural manipulations, including esophageal balloon dilatation used to reproduce angina-like chest pain. To investigate the mechanisms of these esophago-cardiac reflexes, we recorded in 8 normal subjects (N) and 10 patients with diffuse esophageal spasm (DES), the ECG during an esophageal manometric examination and measured the variations of RR intervals induced by dry swallows, swallows of solid boluses (bread) and intravesophageal balloon inflation at 100 mmHg for 10 sec. The percent variation of the RR interval of ECG from its mean basal value to its highest or lowest value observed after stimulation was calculated in both groups.

Results (N, mean ± SD):

<table>
<thead>
<tr>
<th>Group</th>
<th>Dry swallows</th>
<th>Solid swallows</th>
<th>Intraesophageal balloon inflation and deflation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N ± 15 ± 40</td>
<td>N ± 8 ± 40</td>
<td>N ± 16 ± 40</td>
</tr>
<tr>
<td>DES</td>
<td>N ± 14 ± 50</td>
<td>N ± 9 ± 50</td>
<td>N ± 8 ± 50</td>
</tr>
</tbody>
</table>

*p < 0.05 versus the corresponding value of group N; †p < 0.05 versus base period; ‡biphasic response.

Comment: (1) Dry swallows induced a brief increase in heart rate, (2) solid swallows induced an increase in heart rate followed by a decrease, significantly more marked in DES group, (3) balloon inflation induced a decrease in heart rate significantly more intense in DES group, while balloon deflation was followed by a significant increase in heart rate in group N.

In conclusion, the esophageal wall distension, either due to solid bolus or balloon inflation, elicits an inhibitory esophago-cardiac reflex that is more intense in patients with DES and might induce cardiac arrhythmias in predisposed subjects.

Endosonography Can Detect Residual Tumour Infiltration After Medical Treatment of Inoperable Oesophageal Cancer

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The assessment of response to medical treatment of oesophageal carcinoma is based on data provided by endoscopy, histopathology, and computed tomography (CT). The aim of our study was to assess the usefulness of endosonography (ENS) in the surveillance of these patients.

Methods and patients: 28 patients with inoperable oesophageal cancer, treated by combined chemotherapy, radiation therapy and endoscopic therapy, were considered after treatment in endoscopic and histologic remission. ENS was performed with an Olympus EU-M3 echo endoscope (7.5 and 12 MHz). ENS findings were staged according to the new TNM classification. In all patients, computed tomography was carried out. Subsequently, ENS and CT examinations were performed every 2 or 3 months, in order to appreciate the response to treatment or relapse. ENS was systematically carried out when the endoscopic lesions had disappeared, and when biopsies were negative.

Results: The initial evaluation of the 28 patients who were apparently tumour free after combined medical treatment showed: stage I: 2 cases; stage II A: 8 cases; stage II B: 14 cases; stage IV: 3 cases. After therapy, when biopsies were negative, the staging evaluated by ENS was the following: T0N0: 14 cases; T1N1: 2 cases; T2N1: 3 cases; T3N1: 4 cases; T4N0: 1 case; T4N1: 1 case. CT did not show any parietal thickening or lymph node involvement in 3 patients with tumours staged T3N1 and in 2 patients with tumour staged T2N1 by ENS. When no infiltration was detected by ENS, no tumoral evolution was observed within at least eight months (median 14 months; extr:...