Oesophageal T141-T149

T141

SPECIFICITY OF CLINICAL DIAGNOSIS OF GASTRO-oesophageal ACID REFUX.

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Anti-reflux therapy is normally given on a clinical diagnosis of acid reflux, based on appropriate symptoms. However, the specificity of such symptoms is unknown.

This study has evaluated reflux symptoms (heartburn and regurgitation) in the diagnosis of acid reflux. Scored assessment of 8 dyspeptic symptoms (heartburn, regurgitation, early satiety, feeling of fullness, bloating, epigastric pain, nausea, and vomiting) and 24 hour ambulatory pH monitoring were carried out prospectively in 110 dyspeptic patients, after exclusion of peptic ulcer disease.

Symptoms (heartburn and regurgitation) were predominant in frequency and severity in 56 patients, of whom 20 were confirmed as having abnormal acid reflux by pH studies. (Total Acid Exposure Time % < 4 = 130 + 11.5 minutes* [abnormal] vs. 12.5 + 3.15 minutes [normal] p < 0.001). Demeester Score 3.13 ± 2.9* [abnormal] vs. 12.8 ± 0.05 [normal] p < 0.001). Pain/Reflex event correlation 0.56 ± 0.09 [abnormal] vs. 0.18 ± 0.06 [normal] p < 0.001.

No difference in incidence or severity of reflux symptoms was found between these groups. Patients with lesser degrees of reflux symptoms also had normal pH studies.

Reflux symptoms have poor sensitivity and specificity for objective acid reflux in a dyspeptic population.

* Mean ± SEM
$ Student-t-test

T142

Barrett's carcinoma: implications for reflux management and surveillance

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Carcinoma arising in Barrett's oesophagus is recognized with increasing frequency but its relationship to reflux and the role of surveillance is unclear. Between 1971 and 1990, 207 patients in one unit underwent oesophagectomy for adenocarcinoma, of which 51 arose in Barrett's oesophagus, accounting for 24% of the surgically treated adenocarcinomas. The male:female ratio was 3:1 and the mean age 63.3 years. Thirteen patients (25.5%) had prior reflux symptoms; 4 patients (8%) underwent anti-reflux surgery and 2 patients were on a surveillance programme. By post-resection staging (AJCC 1988) 118 patients (55.3%) had stage II, 30 (58.8%) had stage III and 3 (5.5%) had stage IV tumours. The 90-day hospital mortality fell from 22.5% prior to 1986 to 6.3% in the past 5 years. The one, two and five-year survival rates were 45.9%, 25% and 13.6% respectively.

Five-year survival was significantly greater for stage II patients (25%) than for stage III and IV patients (4.3% (P<0.001) and for tumour length <6cm (21%) than for tumour >6cm (zero percent) (P<0.001).

The study suggests that patients with silent reflux or following reflux surgery are also at risk of malignant change. Surveillance interval is unclear as two patients developed carcinoma without prior dysplasia. Survival following resection is related to the tumour stage and tumour length and is similar to squamous cell carcinoma and adenocarcinoma without columnar metaplasia.

T143

A COMPARISON OF OESOPHAGEAL MOTILITY DURING BREAD AND WATER SWALLOWS


This study compared oesophageal motility during eating and during water swallows in normal individuals. Manometry was performed on 20 volunteers in a semi-erect position. 5 ml water bolus was given every 30s until 10 peristaltic waves were recorded, followed by identical measurements after 2 cm cubes of buttered bread were eaten at the patients' own rate. Swallows were marked by a throat sensor and the subject's indication of swallowing. Amplitude (AMP), duration (DUR), propagation velocity (VEL) of peristaltic waves, swallow rate (RATE), percentage swallows non-conducted (NNonC) and percentage swallows initiating abnormal waves (NAbN) were measured.

During bread swallows, DUR was longer (4.85 ± 3.94 s, p < 0.001) and RATE was faster (3.2 ± 2.1 s², P < 0.001) and both NNonC (9.8 (0-47.1) vs 0 (0-23.1) [median (range)], p < 0.001) and NAbN (13.0 (0-37.5) v 0 (0-23.1), p < 0.001) were increased. AMP and VEL were not significantly altered.

The most clinically relevant difference is the percentage swallows which are non-propagating during food manometry. The 95th percentiles for bread swallows (37.2% (NON), 33.0% (AbN)) are markedly higher than those for water bolli (16.5% (NON), 22.2% (AbN)). This high percentage of non-peristaltic swallows during eating in healthy volunteers has implications for interpreting results in patients by dysphagia and in the automated analysis of ambulatory motility which may require different normal limits during periods of eating.

T144

PATIENTS WITH HEARTBURN HAVE A SPECIFIC PERSONALITY PROFILE

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Specific personality traits have been identified in patients with duodenal ulcers and the irritable bowel syndrome. The aim of this research was to identify a personality profile common to heartburn sufferers. 104 consecutive patients (52 m, mean age 50 y, standard deviation (SD) years) presenting for the first time with heartburn severely sufficient to warrant endoscopy, were recruited. Just prior to endoscopy, patients completed i) a hassles and uplifts scale, ii) a standardised questionnaire identifying personality traits (Crown- Crying); and iii) a standardised questionnaire identifying personality traits (Crying-Crying). Comparisons of healthy age-sex matched volunteers also completed the questionnaire.

On the basis of endoscopy and esophageal pH monitoring, patients were divided into the following groups: esophagitis (EOO, 32), normal endoscopy but positive pH test (pH +ve, 18), normal endoscopy and pH test (pH -ve, 34), and other eg D0 (OTH, 16). Four patients with both EOO and OTH were excluded.

Heartburn sufferers as a group (ALL) [p < 0.002] and especially OTH [p < 0.0001] experienced more hassles and more uplifts than controls. OTH also experienced more hassles and more uplifts than the other three patient groups [p < 0.05]. The frequency of hassles and uplifts was the same for all groups. Compared with controls, ALL had significantly increased anxiety [p < 0.05], particularly those with a normal endoscopy (pH +ve and pH -ve) [p < 0.05]. With the exception of EOO, all groups had significantly greater obsessiveness than controls [p < 0.05]. Social support structures were the same for controls and for each group. In conclusion, heartburn sufferers do have a personality profile which differs from normals. It is also possible, on the basis of hassles, uplifts, anxiety and obsessiveness, to differentiate the different pathological groups within heartburn patients. This may aid our understanding and treatment of patients with this symptom.
PREVALENCE OF OESOPHAGITIS IN PATIENTS
CRONICALLY TREATED WITH NSAIDS
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It is widely known that gastro-duodenal lesions (erosions and/or ulcers) represent the main side-effect of NSAIDs. To date, however, a few data exists in literature about the prevalence of oesophagitis in patients chronically treated with these drugs. A recent report (Arnold JD et al: Gut 1991; 32: A1214) showed a prevalence of 20% for oesophageal lesions in patients receiving long-term NSAIDs. From October '88 to December '91, we submitted 183 rheumatic patients (mean age= 52.7 yrs, 147 female), chronically treated with NSAIDs for at least 6 months, to upper gastrointestinal endoscopy. 66 patients (36%) had a normal endoscopic aspect of upper gastrointestinal mucosa. Oesophageal lesions were present in only one patient (0.5%), who had no gastric or oesophageal symptoms. Gastric erosions were present in 37 patients (20.2%) and 40 patients (21.9%) had one or more gastric ulcers. No duodenal erosion was found: 20 patients (11%) had one or more duodenal ulcers. Gastric + duodenal erosions and ulcers were found in 13 (7.1%) and 16 patients (3.3%), respectively. These findings confirm the relatively high prevalence of gastro-duodenal lesions in chronic NSAIDs users; in contrast with previous observation, they show that oesophageal lesions are very uncommon in this situation.

A CONTINUOUS 10-YEAR ASSESSMENT OF THE RESULTS OF SURGERY FOR SHORTENED OESOPHAGUS

Our policy for dealing with the shortened oesophagus with or without a dilatable stricture has been to perform a V-Y gastroplasty and partial fundoplication. Of 57 patients who underwent this procedure 3 died in the perioperative period. Three have since died in the long term from unrelated causes. The patients refused to have invasive investigative procedures, and was lost to follow up. Forty eight patients were available for continuous assessment over 6 months to 10 years (with a mean of 6 years) from the subject matter for this communication. Thirteen of these patients had previous surgery for reflux disease. One further patient had two such operations. Thirty three patients remain asymptomatic at present (Visick I). Twelve patients have vague symptoms (Visick II). Thirty one patients successfully underwent ambulatory 24hr pH monitoring. Eighteen have no demonstrable reflux. Eleven have some reflux but not reaching the significant 4.2% level on the Darmestet score. One patient has significant acid reflux and one has significant alkaline reflux both of whom are asymptomatic. Manometry was successful both pre- and post-operatively in 17 patients. In 10 patients the lower oesophageal high pressure zone (LOHP) showed an elevation of the time by a mean of 4.8mm Hg. In 4 patients the zone remained unchanged, while in 4 other patients there was a decrease in the LOHP zone by a mean of 2.75mm Hg. These changes in the LOHP did not correlate with the Visick grading of symptomatology. Only two patients showed endoscopic evidence of grade III oesophagitis, one of whom regressed over a 7 year period to grade 0. Of 16 patients who presented with oesophagitis (associated with a dilatable stricture) only two currently require dilatation. 7 and 8 mths after surgery, 3 patients were asymptomatic, 9 patients have no symptoms of reflux and 4 remain symptomatic. Of 13 patients aged 21 to 67 years (mean 48 yrs) who underwent the former procedure over a 2½ years after surgery, 11 have no symptoms of reflux and one other patient has occasional symptoms of reflux. Manometry was normal in all patients. None of the patients have symptoms of reflux. One patient had oesophagitis for up to one year after surgery, but has since healed. Combined 8-hour ambulatory pH and manometry was performed in 10 patients. All of them showed an alkaline environment in the supra-diaphragmatic colon, but one of them showed an exposure to pH <4 for 6.2% of the 8-hour period. This patient remains asymptomatic and oesophagitis-free at present. The ambulatory manometry showed various proportions of propulsive, simultaneous, retrograde and mixed waves. It was noted that the highest proportion of propulsive waves occurred in patients who had undergone the operation 10 or more years ago. In conclusion, our results demonstrate that the clinical results achieved with short segment colonic replacement of peptic strictures are confirmed on ambulatory pH, whilst the ambulatory manometry reveals a normal physiological pattern of activity in the transposed colon.
The significance of the hiatus hernia in childhood gastro-oesophageal reflux disease (GERD) has been debated for many years (Arch Dis Child 1959: 34: 344). It has recently been shown to be a useful indicator of gastroesophageal reflux in children. Gastroesophageal reflux was diagnosed in 95 children aged 5-13 years (SD 28-37 months) who presented with symptoms of GERD and in whom reflux was demonstrated radiologically, were investigated. Oesophageal pH monitoring for 18 hours and endoscopy were performed on all patients. They were divided into those in whom a hiatus hernia was demonstrated radiologically (Hiatus, n=37) and those with no hiatus hernia (Normal, n=58). Using a cutoff of pH <4 the groups were compared for total number of reflux episodes, number of episodes >5 min longest episode, percentage pH <4 and the presence of endoscopic esophagitis. Non-parametric tests were used.

Results [median (IQR)]

<table>
<thead>
<tr>
<th>Episode</th>
<th>Eps</th>
<th>Eps &gt;5m</th>
<th>Longest</th>
<th>pH &lt;4</th>
<th>Esophagitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiatus</td>
<td>37</td>
<td>67(57)</td>
<td>5(9)</td>
<td>30(54)</td>
<td>13.1(19.7)</td>
</tr>
<tr>
<td>Normal</td>
<td>58</td>
<td>67(51)</td>
<td>4(6)</td>
<td>19(33)</td>
<td>8.4(16.2)</td>
</tr>
<tr>
<td>p</td>
<td>NS</td>
<td>&lt;0.05</td>
<td>&lt;0.05</td>
<td>NS</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

Both groups had the same number of reflux episodes. However, the number of episodes longer than 5 min was significantly greater in the Hiatus group, as was the duration of the longest episode. The percentage of pH <4 episodes just failed to reach statistical significance (p = 0.06). Hiatus hernia was also found to correlate with the presence of esophagitis.

In conclusion, the presence of a hiatus hernia prolongs reflux episodes and is associated with an increased incidence of esophagitis.