Gastric dysplasia is generally accepted as a precursor lesion. Ninety-nine patients with an initial diagnosis of gastric dysplasia, based on examination of endoscopic biopsies, were followed-up to define the magnitude of the neoplastic risk. Median follow-up time was 20 months. The degree of dysplasia in the initial biopsy was mild in 73 cases, moderate in 16 cases and severe in 10. Mild dysplasia was no longer detected in 74% of patients, persisted in 19% and progressed in 7% (in one to moderate dysplasia and in four to carcinoma). Moderate dysplasia regressed to mild dysplasia in 31% of patients, it was no longer found in 56% and progressed to cancer in 13%. Our data suggest that mild and moderate dysplasia can progress slowly, though in most instances remain stable or regress. Thus, annual endoscopic and histologic controls appear to be advisable. Severe dysplasia was no longer detected in 20% of patients, regressed to moderate in 10%, persisted in 10% and progressed to cancer in 60%. Half of patients had progression to carcinoma within 3 months. Severe dysplasia indicates a high risk of carcinoma and we recommend gastrectomy when severe dysplasia persists in repeated biopsies.

GASTRIC ACIDS: POSSIBLE ROLE IN THE PATHOGENESIS OF GASTRIC CANCER

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Bile acids have been implicated as a possible etiological factor in the development of gastric carcinoma. In the present study, we have measured the bile acid profile of gastric aspirates in 82 patients with gastritis (n=27), gastric intestinal metaplasia (n=13) and gastric carcinoma (n=19) diagnosed by endoscopic biopsy and have compared it with that found in controls with normal gastric histology (n=23).

The four groups were age and sex matched and randomly selected. Gastric aspirates were collected at the time of endoscopy and subsequently analyzed for primary and secondary bile acids by high performance liquid chromatography (HPLC).

No significant differences were found in the amount of total or primary bile acid concentrations among the four groups. However, secondary bile acid concentrations were significantly lower in carcinoma patients (median 0.0 umol/l), (p<0.01, Mann Whitney U test). No such differences were observed when gastritis group (median 9.3 umol/l) and metaplasia group (median 5.3 umol/l) were compared with the controls.

The lower concentration of secondary bile acids in the gastric cancer patients may be due to increased deconjugation or nitrosation, which may be a factor contributing to carcinogenesis in the intact stomach.

GASTRIC CANCER - A CURABLE DISEASE

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In the 1980's, several important changes in the management of patients with gastric cancer (GC) in Britain have taken place: a more widespread use of endoscopy leading to earlier diagnosis, more radical surgical techniques, better anaesthetic management, nutritional support and perioperative care. Whether these changes have led to any improvement in outcome is as yet unknown.

Between 1970 and 1989, we treated 493 patients with GC, 207 of whom underwent potentially curative resection (PCR). Comparing the first 5 year period with the last, large increases occurred in the proportion of patients who underwent PCR (31% to 53%, p<0.01), the proportion with early gastric cancer (1% to 15%, p<0.01) and stage I disease (4% to 26%, p<0.001). Only one of the 207 patients was lost to follow-up.

RESULTS

Stage of No. of 5 year survival (%) disease patients (95% confidence limits) I 9 79 II 41 69 (50-87) III 87 28 (17-39)

* Kaplan-Meier.

CONCLUSIONS

These findings suggest that in Britain in the 1990's, an increasing proportion of patients with GC can be diagnosed at a relatively early pathological stage, when most patients can be cured by means of radical surgery.

WHAT FACTORS PREDISPOSE ELDERLY STOMACH TO GASTROPATHY?

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Advancing age is associated with biochemical and histological changes in the stomach, which may predispose to gastropathy, but these are poorly defined. We reviewed 63 dyspeptic patients referred for gastroscopy. Two antral and two body biopsies were taken from all patients for detailed histological examinations. Gastric aspirate was analysed for peptic activity, pH and sialic acid concentrations which had been used as a parameter for gastric mucosa production. Patients were divided into 3 groups for analysis: 42 elderly patients with histopathologically proven gastritis (10 of whom had a co-existing gastric ulcer 'GU') (group 1), 10 elderly subjects with normal endoscopy and histology (group II) and 11 normal young subjects (> the age of 60 years) (group III). The biochemical results are tabulated as follows (Median value):

<table>
<thead>
<tr>
<th>Groups</th>
<th>Peptic Activity</th>
<th>pH</th>
<th>Sialic Acid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(ug/ml)</td>
<td></td>
<td>(ug/ml)</td>
</tr>
<tr>
<td>Group 1</td>
<td>49.7</td>
<td>2.16</td>
<td>16</td>
</tr>
<tr>
<td>Group 11</td>
<td>105.5</td>
<td>2.16</td>
<td>50</td>
</tr>
<tr>
<td>Group 111</td>
<td>401.2</td>
<td>1.50</td>
<td>176</td>
</tr>
</tbody>
</table>

* Man v 111 p <0.001 for peptic activity and Whitney Test: sialic acid, p <0.004 for the pH.

Unexpectedly large amounts of acid mucus was found cytochemically in 10 elderly patients with normal histology and 12 with very mild reactive gastritis. These patients were on NSAIDs.

Conclusions: 1) With increasing age, aggressive factors (pH, peptic activity) fall significantly, particularly with development of gastritis. 2) Defensive factors fall, and this may be highly significant in the etiology of GU in this age group. 3) The unexpected mucus changes in the elderly might have an important implication regarding NSAIDs induced gastropathy.