LETTERS TO THE EDITOR

Colorectal neoplasia in acromegaly: the reported increased prevalence is overestimated

EDITOR,—We read with interest a recent paper by Jenkins et al (Gut 1999;44:585–587). However, we are concerned with their assertion that acromegaly is a high risk condition for colorectal neoplasia, and their recommended advice on colonoscopic screening and surveillance. Jenkins and colleagues had found that 33 (26%) of 129 patients (updated to 155), treated for acromegaly at St Bartholomew’s Hospital, had at least one adenoma and six (5%) had adenocarcinomas.1

We feel that the choice of controls in this study was inappropriate because although there is no current control population, the authors used comparative data on the incidence of adenomatous polyps from only two cohorts: a published study of left sided adenomas2 and colonoscopic records of all patients without acromegaly that had been examined by one of the authors. Matched for (and side), the relative risk of adenomas was higher in patients with acromegaly when compared with data from the first study, but not when compared with data from the second.

In an attempt to estimate more appropriately the prevalence of adenomas in the normal population, we have carried out a comprehensive review of the literature on adenoma prevalence per decade of life from which two groups of studies emerged. The first group comprised six necropsy studies (n=2914), and the second comprised three screening colonoscopy studies of asymptomatic average-risk volunteers (n=720, table 1).1,2 With the exception of those patients between 50–59 years old, the prevalence rates of adenomas in patients with acromegaly are remarkably similar to those for individuals in screening colonoscopy studies, and less than those from necropsy studies. We find no evidence that patients with acromegaly are at increased risk of developing adenomas.

For colorectal cancer, Jenkins and colleagues1 used comparative data from a regional cancer registry and estimated increased relative risks of 13–90. These figures are exaggerated in comparison with studies using standardised age and sex adjusted population data. Ron and colleagues7 reported 13 colorectal cancers in 1041 male veterans (standardised incidence ratio (SIR) 3.1; 95% CI 1.7 to 5.1) and, using uniform methods of ascertainment of case and comparison groups, Orme and colleagues3 found 12 cases of colorectal cancer in a larger study of 1362 patients with acromegaly (SIR 1.68; p=0.06). There are approximately 1500 patients with acromegaly in the United Kingdom, and it would seem sensible for strategies for large bowel screening to be evidence based. The data given above suggest that the reported increased prevalence of colorectal neoplasia in patients with acromegaly is overestimated and thus, the recommendations given by these authors for early colonoscopic screening and subsequent regular surveillance above that of the normal population cannot be supported by the evidence currently available.

A G RENENH
S T O’DYWER
Department of Surgery,
Christie Hospital NHS Trust,
Wilmslow Road, Withington,
Manchester M20 4BX, UK

S M SHALET
Department of Endocrinology,
Christie Hospital NHS Trust


Table 1 Prevalence (%) of adenomatous polyps by decade of life

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>n</th>
<th>&lt;40</th>
<th>40–49</th>
<th>50–59</th>
<th>60–69</th>
<th>70+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autopsy studies**</td>
<td>2</td>
<td>446</td>
<td>21</td>
<td>34</td>
<td>34</td>
<td>44</td>
<td>39</td>
</tr>
<tr>
<td>Arminkosi and McLean*</td>
<td>1000</td>
<td>20</td>
<td>19</td>
<td>27</td>
<td>28</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Stemmermann and Yatani*</td>
<td>202</td>
<td>43</td>
<td>72</td>
<td>59</td>
<td>63</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Rickert and colleagues*</td>
<td>518</td>
<td>17</td>
<td>35</td>
<td>56</td>
<td>58</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Vatn and Stalsberg*</td>
<td>449</td>
<td>6</td>
<td>23</td>
<td>31</td>
<td>46</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Jass and colleagues*</td>
<td>303</td>
<td>11</td>
<td>33</td>
<td>30</td>
<td>36</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Colonoscopy studies in screened populations</td>
<td>2</td>
<td>119</td>
<td>21</td>
<td>33</td>
<td>53</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>DiSario et al**</td>
<td>105</td>
<td>28</td>
<td>41</td>
<td>58</td>
<td>58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rex and colleagues*</td>
<td>496</td>
<td>20</td>
<td>33</td>
<td>31</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted averages</td>
<td>2</td>
<td>2914</td>
<td>15</td>
<td>31</td>
<td>40</td>
<td>48</td>
<td>37</td>
</tr>
<tr>
<td>Necropsy studies</td>
<td>20</td>
<td>20</td>
<td>38</td>
<td>37</td>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screening studies</td>
<td>129</td>
<td>8</td>
<td>29</td>
<td>36</td>
<td>39</td>
<td>26</td>
<td></td>
</tr>
</tbody>
</table>

*Three other autopsy studies (Correa and colleagues; Eide and colleagues; Williams and colleagues) were considered but not included as the age bands in these studies did not correspond with those used by Jenkins et al.
†Patients aged 60–64; ‡patients aged 65–75.

Reply

EDITOR,—Our conclusion that acromegaly may be a high risk condition for the development of colorectal cancer is based not on our own data (we have now discovered 10 patients with cancer from approximately 210 patients who have had a colonoscopy), but also on those of several other studies. In the prospective studies by Jenkins et al and Mouveroux and colleagues5 and fruarte et al,6 cancers were discovered in 12.5% and 20% respectively of patients with acromegaly. Retrospective epidemiological surveys may have failed to show an increased risk of cancer because of differences in methodology—for example, in one study case ascertainment depended upon death certificate entries and cancer registrations which may have been incomplete.7 Furthermore, these studies did not discuss the relevance of the age of the patients. The mean and range of age during follow up were not stated,8 and in another study the mean age at the diagnosis of acromegaly was 52 years old and that at follow up was only 61 years old.9 Our results clearly show that colorectal cancer is a late complication of acromegaly, as the mean age of our affected patients was 67 years old.

The situation for adenomas is less clear and we agree that there is a lack of proper control groups. However, many of the prevalence figures given by Renenh and colleagues were obtained from necropsy studies and therefore cannot provide a valid comparison because the resected bowel was thoroughly washed on up to three occasions, repeatedly examined under magnification in optimal lighting, and lesions as small as 1 mm were classified as adenomas. This gives an increased prevalence of the disease compared with incidences of neoplasia revealed by colonoscopic screening. Furthermore, these studies were of populations with very different demographic, socioeconomic and dietary influences, which are factors known to influence the incidence and prevalence of colorectal adenomas. By contrast, our control groups were taken from similar populations to the patients with acromegaly, and in one group, the colonoscopy...
A comparison between these groups showed an increase of the relative risk of adenomas in patients with acromegaly, although we accept that this risk is not as high as that for cancer, and this raises intriguing questions as to the cause of colorectal cancer in patients with acromegaly. It is possible that the adenoma–carcina sequence in patients with acromegaly differs from that in the non-acromegalic population, or that the cancers arise de novo without an adenomatous stage.

We fully concur that strategies for large bowel screening should be evidence based. Our initial screening recommendations are based on current data and will be modified according to our continuing prospective studies. Subsequent strategies might take into account not only the age of the patients but also their acromegaly, because preliminary data suggest that those patients in whom the disease is more active (elevated serum IGF-I) are more likely to develop adenomas. Until more multicentre studies involving larger numbers of patients undergo- ing careful and total colonoscopy allow the remain speculative but may involve the involvement of larger numbers of patients undergoing careful and total colonoscopy to allow the development of ulcerative colitis may be initiated by inflammation of another aetiology at an anatomically discontinuous site of the bowel. Further studies would support the hypothesis that diversion colitis might be one such trigger for ulcerative colitis. The mechanisms underlying this remain speculative but may involve the recruitment of the mast cells and lymphocytes from the diverted colon to the phenotypically similar vascular endothelium of the ileostomy colon.

**Gastric antral vascular ectasia and its relation with portal hypertension**

**Editor,—**Sphar and colleagues recently published a case series which described the poor response of a haemorrhage from gastric antral vascular ectasia (GAVE) to portal decompression by insertion of a transjugular intrahepatic portosystemic shunt (TIPS) (Gut 1999;44:739–742). However, the authors’ claim that this indicates the absence of a relation between GAVE and portal hypertension is seriously flawed. The failure of this condition to respond to portal decompression cannot exclude a primary role for portal hypertension in the pathogenesis of the disorder. Furthermore, this study would have been more informative if the portosystemic shunts were classified as GAVE means that this is likely to be a key contributory factor.

**Reply**

**Editor,—**We appreciate Dr Fisher’s comments on our recent paper, in which we provided evidence against the role of portal hypertension in the pathogenesis of GAVE. Firstly, lowering or normalisation of portal pressure was not followed by improvement in either the endoscopic findings or the rate of transfusions needed for recurrent bleeding. In this case series, one patient had to be transfused repeatedly for five years despite a patent surgical end to side portocaval shunt (portocaval gradient 2 mm Hg). Furthermore, the degree of residual portal hypertension was not correlated with clinical and endoscopic evolution in patients treated by TIPS. Interestingly, the only patient who responded to TIPS still had an increased gradient after the treatment (14 mm Hg); in this patient, the favourable outcome of GAVE was paralleled by a noticeable improvement in liver function. One study has suggested that arteriography may have a diagnostic value in GAVE. However, typical findings were shown on the arterial phase (hypervascularisation of the antrum and early arteriovenous shunting), and none of our patients had a coeliac axis arteriogram. On direct portography, it was impossible to show dilated mucosal blood vessels in the antrum. In all non-responders, bleeding recurred despite a definite role for portal hypertension.

**References**


**Items**

4.IfNeeded
reversed portal blood flow observed after TIPS or surgical shunt. In addition, splenic vein thrombosis was not observed in any of our patients, obviously because such a finding would contraindicate TIPS, which is not a treatment of segmental portal hypertension. Therefore, we are still convinced that porto-systemic shunting and liver function could both influence liver metabolism of the vasodilating substances that contribute to the pathogenesis of GAVE, whereas portal hypertension alone has no influence.

Professor Thompson) bridge the gap be-
tventure!

all credit to the various depart-
ters 3–23 then cover all aspects of colorectal
cancers, and is President of the Association of
Course and the latter needs little introduction

The editor (DJ Jones) has turned vision
findings.

After TIPS or surgical shunt. In addition, splenic
systemic shunting and liver function could
do not change three pages with all the basic facts and


The series of ABC articles in the BMJ is always enjoyable. This book brings together articles that were published several years ago and were well received in the first edition of 1993. These articles have been updated and eight additional chapters have been added on constipation, diarrhoea, irritable bowel syn-
drome, inflammatory bowel disease, anal cancer, colorectal trauma, tropical colonic diseases, and paediatric problems.

The editor (DJ Jones) has turned vision
findings.

Finally, the book brings together articles that were published several years ago and were well received in the first edition of 1993. These articles have been updated and eight additional chapters have been added on constipation, diarrhoea, irritable bowel syndrome, inflammatory bowel disease, anal cancer, colorectal trauma, tropical colonic diseases, and paediatric problems.

The editor (DJ Jones) has turned vision
findings.

The series of ABC articles in the BMJ is always enjoyable. This book brings together articles that were published several years ago and were well received in the first edition of 1993. These articles have been updated and eight additional chapters have been added on constipation, diarrhoea, irritable bowel syndrome, inflammatory bowel disease, anal cancer, colorectal trauma, tropical colonic diseases, and paediatric problems.

The editor (DJ Jones) has turned vision
findings.

The series of ABC articles in the BMJ is always enjoyable. This book brings together articles that were published several years ago and were well received in the first edition of 1993. These articles have been updated and eight additional chapters have been added on constipation, diarrhoea, irritable bowel syndrome, inflammatory bowel disease, anal cancer, colorectal trauma, tropical colonic diseases, and paediatric problems.

The editor (DJ Jones) has turned vision
findings.

Second Annual Gastrointestinal Cancer Update: A Multidisciplinary Approach

The Second Annual Gastrointestinal Cancer Update conference will be held at the Yarrow Hotel and Conference Centre, Park City, Utah, USA, on 15–19 March 2000. Further information from: Rosalie Lammle. Tel: +1 801 581 3647; email: rosalie.lammle@hsc.utah.edu

European Courses on Laparoscopic Surgery

The European Courses on Laparoscopic Surgery will be held at the University Hospital Saint Pierre, Brussels, Belgium, on 4–7 April 2000 and 21–24 November 2000. Further information from: Conference Services S.A., Drève des Tumuli, 18, B-1170 Brussels, Belgium. Tel: +32 2 375 1648; fax: +32 2 375 3299; email: conference.services@skynet.be

Reprint requests to: G Pomier-Layrargues, Liver Unit, Hôpital Saint-Luc, 1058, rue Saint-Denis, Montreal, Quebec H2X 3J4, Canada.