Correspondence

Role of surgery in the treatment of pseudomyxoma peritonei

R. Novell, A. Lewis, 1990; 35: 21–4

Letter 1

Sir
The above authors in their interesting article on this uncommon disease recommend that 'for localized disease with mucinous ascites, a radical excision of the primary lesion combined with a thorough peritoneal toilet would seem to hold the best prospects of cure: Piver *et al.* suggest that 5% dextrose solution used during operation as a mucolytic may be effective in preventing recurrence'.

In 1959 I reported a case of pseudomyxoma peritonei[1] where peritoneal lavage with streptokinase and streptodornase as mucolytics in normal saline gave rise to a copious flow of semi-fluid material on two occasions, following unsuccessful abdominal paracentesis with a large-bore cannula which had produced only a tiny amount of the typical thick gelatinous substance.

It may be that peritoneal lavage with added streptokinase and streptodornase preparatory to systemic or local chemotherapy, or radical surgical clearance, is more effective than 5% dextrose alone.

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1. Madigan MR. Pseudomyxoma peritonei. BMJ 1959; **21**: 788

Letter 2

Sir
I was interested in the experience of the authors in treating five cases of the above condition and would like to add a case which, we believe, reinforces the policy of aggressive surgical therapy as primary treatment.

A 46-year-old man presented on the 'surgical take' with a 5 day history of lower abdominal pain, non-colicky in nature, which was relieved by lying still. There was no surgical history, nor was there a history of gastrointestinal or urinary tract symptoms. On examination, the abdomen was distended, with moderate tenderness in both lower quadrants. Plain abdominal radiograph was unremarkable and barium enema demonstrated extensive compression of the sigmoid colon and upper rectum. the appendix did not fill. Ultrasound and computer tomographic scans revealed a mixed solid cystic mass arising in the pelvis. Full blood count and biochemical profiles were within normal limits.

At laparotomy, masses of gelatinous ascites were removed from his abdominal and pelvic cavities together with en bloc resection of the appendix with a cuff of caecum, dome of the bladder, sigmoid colon and involved loops (2) of ileum. A Hartmann's procedure was performed.

Pathological examination revealed an obstructing carcinoid tumour (2 cm) of the appendix with a mucous secreting cystadenoma of the appendix tip.

The patient made an excellent recovery and 12 months later repeat computer tomographic scan did not demonstrate any recurrence. Laparotomy was again performed. There was no evidence of tumour or gelatinous ascites, and bowel continuity was restored using the EEA® stapler (Auto Suture, Ascot, UK). The patient was discharged home on the eighth postoperative day.

This case is remarkable in that, to our knowledge, only one other case of pseudomyxoma peritonei associated with carcinoid of the appendix has been reported[1]. In addition, we believe this case illustrates the importance of an aggressive surgical approach as, we believe, total extirpation of the process offers the best prognosis. It is important to include a cuff of 'normal' caecum in removal of the appendix, as early carcinoma of the caecum and infiltrating adenocarcinoma of the base of the appendix[2] have been cited as causative agents in the initial obstruction of the appendix leading to mucocoele formation, which eventually ruptures into the peritoneal cavity giving rise to the entity. It is probable, however, that most commonly the initiating obstruction is of a benign nature, e.g. postinflammatory stricture, faecalith, and inspissated mucus.

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1. Winston Evans R, Furber Murphy A. Pseudomyxoma peritonei of appendiceal origin. *Br J Surg* 1959; **47**: 160–72.
2. Gibbs NM. Mucinous cystadenoma and cystadenocarcinoma of the vermiform appendix with particular reference to mucocoeles and pseudomyxoma peritonei. *J Clin Pathol* 1973; **26**: 413–21.

Authors' reply

Sir
We are grateful to Mr Madigan for drawing our attention to the use of streptokinase and streptodornase as mucolytic agents. The use of another fibrinolytic substance, tissue plasminogen activator, has been shown to prevent postoperative adhesions within the peritoneal cavity[1] and instillation of tissue plasminogen activator might also prove a useful mucolytic in cases of pseudomyxoma.

The case described by Ryan *et al.* is particularly interesting, and we would agree whole-heartedly with their comments regarding total extirpation of primary mucin-secreting tumours of the appendix. However, we would take issue with their use of the term mucocoele in this context. True mucocoeles of the appendix are rare[2] and pseudomyxoma is more commonly associated with a mucin-secreting cystadenoma, as in the case they report.

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1. Menzies D, Ellis H. Intra-abdominal adhesions and their prevention by topical tissue plasminogen activator. *J R Soc Med* 1989; **82**: 534–5.
2. Woodruff R, McDonald JR. Benign and malignant cystic tumours of the appendix. *Surg Gynaecol Obstet* 1940; **71**: 750–5.

Obstructing carcinoma of the left colon managed by subtotal colectomy

R. G. Wilson, J. M. Gollock 1989; 34: 25–6

Sir
The management of obstructing left colon lesions with caecal perforation reported in the above article and supported by Byrne[1] is no doubt of proven value. However, we manage these patients differently by a more conservative approach as demonstrated by two recent cases. The site of caecal perforation is converted to a tube caecostomy. This is used to do an on-table lavage of the proximal colon after definitive tumour resection. Primary colocolic anastomosis is performed and the caecostomy tube removed after 1 week. In

each case the caecostomy closed spontaneously after 2 and 10 days respectively. Both patients were discharged on the tenth postoperative day with no septic complications.

Patients with left colon obstruction and caecal perforation are often very ill, toxic, and may be disadvantaged by extensive gut resection. We consider our method a reasonable alternative to the more radical procedure of extended right hemicolectomy in these very ill patients with faecal peritonitis.

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1. Byrne DJ. Correspondence. *J R Coll Surg Edinb* 1989; **34**: 340

Extrahepatic biliary cystadenoma: report of a case and review of the literature

D. J. Byrne, M. A. Walker, R. Pringle, K. Ramesar 1989; 34: 223–4

Sir
We read with interest the report by Byrne *et al.* of an extrahepatic biliary cystadenoma; we have recently encountered a similar case[1].

In our case, the lesion was detected by preoperative ultrasonography. This prompted more detailed investigation by computed tomography and angiography. The preoperative diagnosis rested between an atypical hydatid cyst and a lesion such as biliary cystadenoma. Because of this, a surgeon with appropriate expertise undertook the ensuing resection.

We were surprised that ultrasonography was not undertaken in the case described by Byrne *et al.*, particularly as they list this as the primary investigation of choice in biliary tract disease. The only preoperative investigation appears to have been cholecystography, which provides limited information. The omission of ultrasound examination resulted in the failure to detect the lesion before operation and could easily have resulted in an inexperienced surgeon dealing with a difficult situation. For these reasons we believe that preoperative ultrasonography is mandatory before cholecystectomy.

Finally, Byrne *et al.* noted 16 previously reported cases whereas our review of the literature has revealed at least two further cases[2,3], bringing the number to 19 including our own.

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1. Hodgson T, Fox S, Bayjoo P, Jacob G. Extra-hepatic biliary cystadenoma in association with adenomyomatosis of the gallbladder. *Clin Radiol* 1990. (In press).
2. Lewis WD, Jenkins LL, Rossi RL *et al.* Surgical treatment of biliary cystadenoma. *Arch Surg* 1988; **123**: 563–8.
3. Frick MP, Feinberg SB. Biliary cystadenoma. *Am J Radiol* 1982; **139**: 393–5.

Primary adenocarcinoma of the appendix

D. Andrew Evans, B. N. A. Hamid, E. M. Hoare 1990; 35: 33–5

Sir
We read with interest the recent paper by Andrew Evans *et al.* on the presentation of adenocarcinoma of the appendix in the North-West Region. Of the 13 cases reported in the period 1972–1984, it is interesting to speculate whether these included the 11 cases previously reported by us for the Preston and Chorley District General Hospitals for the same period[1].

Either a higher incidence of adenocarcinoma of the appendix exists in the Preston area, compared with the rest of the North-West Region, or the North-West Regional Cancer Registry is even more inaccurate than the authors indicate.

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1. Burgess P, Done HJ. Adenocarcinoma of the appendix. *J R Soc Med* 1989; **82**: 28–9.

Authors' reply

Sir
Burgess and Done have provided the initials of their patients and I am therefore able to say that only one of their 11 cases (T.B.) appeared in our search of the Cancer Registry. This patient was excluded from analysis because, according to the Wolff and Ahmed classification, he had a carcinoma of the caecum. Of the remaining ten cases, four were thought to be cases of metastatic adenocarcinoma. These would not have been included in our review, which dealt only with primary disease of the appendix.

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