Closure of a gastrocolic fistula after treatment with cimetidine

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Summary

A 66-year-old Englishman developed a gastrocolic fistula as a result of peptic ulceration. Treatment with cimetidine prompted unexplained closure of the fistula.

Introduction

It is traditional that gastrocolic fistulae should be treated surgically. The authors describe a case of gastrocolic fistula secondary to presumed peptic ulceration which by necessity was treated medically. The result was unexpectedly favourable.

Case history

A 66-year-old Englishman with chronic bronchitis and a past history of pulmonary tuberculosis and peptic ulceration took unsupervised steroid treatment for approximately one year. He was admitted to hospital in poor condition with epigastric pain, haematemesis and melaena and exacerbation of chronic bronchitis. A presumptive diagnosis of peptic ulceration aggravated by steroids was made but his poor respiratory condition precluded endoscopic examination. He was given a blood transfusion and his respiratory failure was treated with oxygen, bronchodilators and conventional antibiotics. His chest radiograph showed a new left apical cavity and his sputum contained acid fast bacilli. He was started on standard antituberculous treatment in addition. One week later he complained of diarrhoea and abdominal pain which improved with an antacid. These symptoms persisted on the withdrawal of treatment and sigmoidoscopy showed an inflamed rectal mucosa and copious clear fluid trickling down the sigmoid colon. A barium enema showed a gastrocolic fistula with communication between the transverse colon and the greater curvature of the stomach (Fig. 1).

All oral medication was discontinued and he was given parenteral antituberculous drugs (rifampicin, isoniazid and capreomycin) and cimetidine in standard dosage (1 g/day). Capreomycin was chosen

because his original mycobacterial infection was resistant to streptomycin. The patient refused to consider surgery but did agree to fibre-optic endoscopy 2 weeks later which showed a healing ulcer but no fistula. After 17 days his diarrhoea had stopped and a return to oral treatment was possible without return of symptoms. A repeat barium enema confirmed the closure of the fistula (Fig. 2) and no relapse has occurred since.

Discussion

Gastrocolic fistulae can arise from a variety of pathological processes; malignant disease, peptic ulceration, inflammatory bowel disease, tuberculosis and diverticular disease are well recognized causes. Fistulae associated with peptic ulceration are most commonly the gastro-jejuno-colic fistula occurring as a late complication of gastrectomy and gastro-enterostomy. True gastrocolic fistulae resulting from benign peptic ulceration are quite rare, occurring only when the ulcer is on the greater curvature and commonly with associated steroid treatment (Hitchen, 1972; Smith and Comer, 1974). The symptoms of the fistula arise from the retrograde passage of colonic material to the upper gastrointestinal tract. The presence of the pressure gradient between the colon and the stomach maintains the fistula and makes spontaneous resolution unlikely. For this reason surgery has always been advocated as a treatment of choice with excision of the fistula, or proximal colostomy. The closure of the fistula following non-surgical treatment in this patient was therefore unexpected. There was no doubt about the original diagnosis nor contention over its closure. It is possible that the fistula may have been tuberculous but the previous history of peptic ulceration, the antecedent steroid treatment, the rapid response to treatment and the endoscopic appearances after treatment make peptic ulceration much more likely. If that is so then conservative treatment with cimetidine may promote closure of such fistulae and prevent unnecessary surgery in similar high risk cases.

FIG. 1. Barium enema showing a gastrocolic fistula with communication between the transverse colon and the greater curvature of the stomach.

FIG. 2. Repeat barium enema after treatment confirming closure of the fistula.

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