60 mmHg. There was marked upper abdominal tenderness with guarding. The spleen could not be palpated although there was dullness to percussion in the left hypochondrium. He had no shoulder tip pain and the bowel sounds were present and normal.

Initial investigation revealed a haemoglobin of 12.1 g/dl, elevated white cell count at $14.3 \times 10^9/l$ (62% atypical mononuclear cells), platelets $208 \times 10^9/l$, positive Paul Bunnell test (1/640 titre), positive Epstein Barr virus IgM test, and abnormal liver function tests. Chest and abdominal X-rays were normal.

Two days after admission he remained clinically stable although his haemoglobin had fallen to 9.6 g/dl with 42% reticulocytes, negative Coombs' and anti-i antibodies and a normal serum haptoglobin level. An abdominal ultrasound showed hepatosplenomegaly with a small transonic shadow anterior to the spleen. A computed tomographic scan revealed a minimally enlarged spleen displaced downwards by a low density, non-enhancing, intracapsular collection (Figure 1). A diagnosis of spontaneous subcapsular splenic haematoma complicating infectious mononucleosis was made. He was managed conservatively under combined medical and surgical supervision.

Figure 1 Computed tomographic scan showing splenic haematoma.

He remained clinically stable and repeated ultrasound examinations over the next 6 weeks showed a minimal change in the size of the haematoma. The haemoglobin rose to 11.3 g/dl and the patient was allowed home with the advice to avoid all strenuous activities. Subsequent follow-up over a 6-month period showed a progressive rise and fall in the serum unconjugated bilirubin levels (consistent with the resolution of a haematoma), a return of liver function tests to normal, and haemoglobin rising to 14.9 g/dl. Serial ultrasound examinations showed progressive resolution of the haematoma.

It has been suggested that subcapsular splenic haematoma formation precedes rupture in infectious mononucleosis. In a review of 107 cases of ruptured spleens reported in infectious mononucleosis, only 18 were found to be truly spontaneous.³ A case similar to ours but necessitating splenectomy has been described.⁴ Conservative management has not been adequately assessed because of its infrequent occurrence. Sakulsky *et al.*⁵ Hoagland & Henson⁶ and McLean *et al.*⁷ recommend immediate surgical exploration and splenectomy but two previous reports^{1,2} describe successful non-surgical management. As our case illustrates, this line of approach seems justifiable in selected cases under combined medical and surgical supervision.

Although tenderness of the spleen tip is commonly found in infectious mononucleosis, guarding in the left flank should alert the clinician to the possibility of haematoma formation. Repeated attempts to palpate an impalpable spleen under these circumstances should be avoided since the consequences could be disastrous.

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Bowel perforation in a patient receiving prednisolone for myasthenia gravis

Sir,

Patients on steroid therapy are at increased risk of gastrointestinal perforation.¹ The associated morbidity and mortality may be prevented if the diagnosis is made early. Lateral decubitus films of the abdomen to identify intraperitoneal air should be considered for any patient taking steroids who complains of abdominal pain.

A 61 year old woman who had myasthenia gravis diagnosed 12 years previously was admitted with breathlessness. Drugs on admission were azathioprine 150 mg, neostigmine 30 mg five times daily and prednisolone 2 mg twice daily. The breathlessness improved after an edrophonium chloride (Tensilon) test. Neostigmine was increased to 45 mg five times daily and prednisolone to 20 mg twice daily. The patient developed severe abdominal cramps so the neostigmine was reduced to its original dose after 2 days. Three days later the patient developed abdominal pain. She was tender in the left iliac fossa. Abdominal X-rays showed air under both diaphragms. Laparotomy revealed a perforated sigmoid colon. The perforation was localized and thought to originate

in a diverticulum. There was no previous history of diverticular disease. The patient subsequently made a good recovery.

Our patient was taking three drugs which can cause gastrointestinal symptoms. One of the side effects of neostigmine includes abdominal cramps. Intestinal perforation following azathioprine is a complication usually seen after transplantation and it is likely that it is due to concomitant steroid therapy.² Patients on steroid therapy are at increased risk of gastrointestinal perforation.¹ Approximately 20% of all perforations related to diverticulosis occur in patients who are on steroid therapy.³ Fadul *et al.*⁴ have shown that perforation is more common in patients being treated with steroids for neurological disease. In their study there was no correlation between risk of perforation and the dose or duration of steroid therapy.

In the presence of steroids, gastrointestinal perforation is difficult to diagnose because signs and symptoms of perforation are masked by the anti-inflammatory effect of the steroids. Our patient's symptoms were initially thought to be caused by neostigmine. The localized abdominal tenderness however, led to further investigation and diagnosis of perforation which occurred 5 days following the increased dose of prednisolone.

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Munchausen's syndrome diagnosed by radiological examination

Sir,

Munchausen's syndrome is an uncommon disorder in which patients attempt to seek repeated admission to hospital, often subjecting themselves to painful or physical distress in the process. Asher¹ divides the clinical types into abdominal, haemorrhagic and neurological. We describe a case of haemorrhagic/abdominal Munchausen's diagnosed by X-ray examination.

A 56 year old woman presented to the casualty department complaining of acute abdominal pain. She said that she had longstanding ulcerative colitis which had been quiescent until the previous 72 hours when she had been losing a large amount of blood per rectum. She said that she was only travelling through and that she was usually under the care of a consultant in a well known general hospital in the north of England. Further questioning about family, relatives,

acquaintances all proved fruitless. Neither the consultant she referred to nor case notes in her name existed at the hospital mentioned.

On examination she appeared to be restless and constantly crying in pain and asking for analgesia. She resisted general examination, but her abdomen, which was noted to be scarred from multiple previous operations, was soft and bowel sounds were normal. Before proceeding to rectal examination it was decided to perform pelvic and abdominal X-ray examination. This revealed multiple solid objects in the rectal area (Figures 1 and 2). During an examination under anaesthetic 5 double-edged razor blades were removed from the rectum. The patient discharged herself on recovering from the anaesthetic.

Suspicion that this was a case of Munchausen's disease was aroused early in the care of this patient because of certain features in the history – a person 'travelling through', with a lack of referral notes, or of relative contacts. There was also a

Figures 1 and 2 X-rays of rectal area.