sigmoid regions and occasionally in the caecum. It results from pressure necrosis of the colonic wall from impacted faeces. Constipation is the pre-eminent symptom in all cases and straining at stool the precipitating event. Drug-induced faecal impaction is becoming more prevalent and is not uncommon in opiate addicts. Both faecal impaction and perforation have been recently reported in renal transplant patients in whom aluminium-based antacids have been implicated.² In the present case constipation worsened during antidepressant therapy. Ayd³ reported that 60% of patients taking tricyclic antidepressants suffer from constipation, and cases of adynamic ileus have been described in patients taking these drugs.⁴ Giving drugs that strongly inhibit colonic motility to patients with refractory constipation is not without hazard.

Adequate resuscitation, antibiotic cover, and early operation form the basis of treatment. In generalised peritonitis exteriorisation⁵ with limited resection of the perforation and thorough peritoneal lavage remains the operation of choice. In contrast to similar situations in diverticular disease, mobilisation of the colon presents few problems. Advocates of resection and primary anastomosis must carefully consider the dangers of gross contamination and unprepared bowel in an often moribund patient. In localised infection or in right-sided perforations, however, this procedure becomes more feasible. Some surgeons delay primary closure of the skin incision in view of the unavoidable wound contamination. Antibiotic cover should be directed against Gram-negative and anaerobic organisms. Later, persisting constipation merits careful attention.

I thank Mr J C Hammonds, consultant surgeon, Plymouth General Hospital, for permission to publish this report.

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(Accepted 15 August 1978)

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Self-administration of metallic mercury by intravenous injection

Intravenous injection of metallic mercury is an unusual event which may have different consequences. Death may result after an acute illness characterised by increasing pulse rate, fever, muscle spasms and rigidity, respiratory failure, and an increasing blood urea concentration.¹ Large (20 ml) intravenous injections of mercury resulting in extensive pulmonary embolism due to mercury globules may cause only moderate upset of pulmonary function. This may include moderate degrees of restrictive lung disease and diminution of diffusing capacity. These usually return to normal.² In other cases only transient impairment of renal and hepatic function may occur,³ or if only minute quantities of mercury have been injected no ill effects may result.⁴

Case report

A 34-year-old man with a history of psychiatric illness was admitted allegedly having ingested two packets of Weedol (containing 1.5 g paraquat) followed by boiled hawthorn roots, which he thought might be the antidote. He was symptom-free but examination showed a chronic granuloma in the left antecubital fossa. He stated that he had injected himself six months before with liquid mercury. The exact quantity was not known.

Chest radiography (see figure) showed numerous specks of mercury throughout both lung fields, mainly at the peripheries and bases. Small specks were also seen throughout the liver, in the left kidney, and in the region of the right parotid gland, indicating that the mercury had passed through the lungs into the systemic circulation. The haemoglobin concentration was 14.5 g/dl. A midstream specimen of urine initially contained 60×10^6 white cells/l ($60/\text{mm}^3$) and moderate amounts of protein but later became normal. Blood urea was 5.5 mmol/l (33 mg/100 ml); serum creatinine 80 $\mu\text{mol/l}$ (0.9 mg/100 ml). Creatinine clearance varied from 68 to 102

Radiographic appearances of mercury in both lung fields. Heart is displaced by depressed sternum.

ml/min, and 24-hour urinary protein excretion was 56 mg. Serum total bilirubin was 12 $\mu\text{mol/l}$ (0.7 mg/100 ml), and the transaminase concentrations were normal. Serial blood gas measurements and ECGs were also normal. Results of pulmonary function tests were: forced expiratory volume in 1 s 4.6 l, forced vital capacity 5.2 l, peak flow 560 l/min, and carbon monoxide transfer factor 6.7 mmol/min/kPa—predicted 11.4—(20 ml/min/mmHg—predicted 34). Urinary mercury on admission was 850 $\mu\text{g/l}$, and five days later it was 2 mg/l (normal less than 80 $\mu\text{g/l}$). Blood mercury was 123 $\mu\text{g/l}$ (normally undetectable). The blood paraquat concentration was below 1 $\mu\text{g/l}$, which suggested that little or no paraquat had been ingested or absorbed.

Comment

This patient showed evidence of considerable mercury embolisation in the pulmonary and systemic circulation associated with raised blood and urinary mercury concentrations. There was a moderate decrease of diffusing capacity in the lungs and possibly a diminished creatinine clearance but no other abnormalities.

The long-term effects of metallic mercury poisoning are not fully known. Removal of mercury granulomas at injection sites should be attempted as considerable quantities may be removed.⁵ Slow ionisation of metallic mercury by biological oxidation forms mercuric salts that are largely excreted via the colon, kidneys, and salivary glands.⁴ Penicillamine or dimercaprol may be used to enhance the elimination of heavy metals from the body and are recommended in acute inorganic mercury poisoning, but their value in chronic mercury poisoning is not known.

No specific measures were employed in this patient, who unfortunately was lost to follow-up.

I am indebted to Lt-Col M Brown, RAMC, for permission to report this case.

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(Accepted 28 July 1978)

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