

infarct, and it resolved completely after aspiration and corticosteroid drugs with a fall to normal of the E.S.R.

A hypersensitivity reaction to autologous heart tissue, possibly altered antigenically by ischaemia, has been postulated as the cause of the postmyocardial infarction syndrome. This case was remarkable because of the severity of the pericardial reaction observed, which we think may have been related to the patient's strong personal history of allergy and her ability to develop auto-antibodies, but immunological studies failed to elucidate the pathogenesis.

We wish to thank Mrs. Christine Ponsford and Mrs. Jennifer Thomas for technical help and Professor P. B. Beeson for permission to report this case of a patient under his care.

References

- Claurec, M., Cristol, R., and Raharissan, S. (1966). *Presse Médicale*, 74, 965.
 Dressler, W. (1959). *Archives of Internal Medicine*, 103, 28.
 Kaplan, M. H. (1969). *Progress in Allergy*, 13, 408.
 Prewitt, J. A. (1968). *American Heart Journal*, 76, 139.

Pulmonary Complications after Oesophagogastroscopy using Diazepam

P. A. TAYLOR, P. B. COTTON, R. M. TOWEY,
A. E. GENT

British Medical Journal, 1972, 1, 666

Diazepam has so facilitated many diagnostic and therapeutic procedures (*British Medical Journal*, 1970) that possible dangers may be overlooked. We report the cases of two patients out of a series of 1,000 patients undergoing fiberoptic oesophagogastroscopy in this hospital who subsequently developed pulmonary complications.

Case Reports

Case 1.—An emaciated 69-year-old man admitted to hospital with pyloric stenosis was treated by gastric suction and intravenous fluids. Pulmonary tuberculosis was diagnosed on x-ray examination and subsequent sputum culture and chemotherapy was started. One week later, after overnight starvation, he underwent oesophagogastroscopy with the ACMI 7089A fiberscope. Diazepam 10 mg and atropine 0.6 mg were given intramuscularly one hour beforehand and the pharynx was sprayed with 4 ml of 4% lignocaine. He became stuporous after a further 5 mg of diazepam given intravenously immediately before the procedure, which was performed in the left lateral position. The examination was terminated when he vomited and became cyanosed. Signs and x-ray appearances were consistent with aspiration of vomit. Despite having oxygen therapy overnight he was successfully anaesthetized for laparotomy the next day. Anaesthesia was induced and he was intubated after preoxygenation, cricoid pressure (Sellick, 1961), and suxamethonium chloride. Chest physiotherapy was then performed (Clement and Hubsch, 1968). At laparotomy a gastric carcinoma was found and bypassed and he left hospital three weeks later.

Case 2.—A woman aged 69 was admitted to hospital with pronounced weight loss and lower abdominal pain. Barium-meal

examination showed a high lesser-curve gastric ulcer, probably neoplastic. This was confirmed by fiberoendoscopy (and biopsy) using the same technique as described above except that the intravenous dose of diazepam was 10 mg and the examination was completed without obvious incident. Fever developed, however, and seven days later there was obvious pulmonary consolidation and abscess formation on the chest x-ray film, which had previously been clear. There was a good response to physiotherapy and Septrin given by mouth and she survived exploratory laparotomy one month later. It is of interest that she had developed a lung abscess in 1941 after pneumonia.

Comment

Parenteral diazepam has been used both for induction of anaesthesia (Brown and Dundee, 1968) and as a satisfactory tranquillizer during radiology and such procedures as minor oral surgery and conservative dentistry (Brown *et al.*, 1968), cardioversion, and endoscopy.

Over 1,000 fiberoendoscopic examinations have been performed at this hospital using topical pharyngeal anaesthesia and diazepam given slowly intravenously until dysarthria and hemiptosis appear. The occurrence of only two known pulmonary complications speaks for the safety of this drug, which enables most endoscopies to be performed on outpatients.

It is, however, important to remember that diazepam caused suppression of the laryngeal closure reflex in eight out of 19 patients tested by Healy and Vickers (1971). The present two patients were both old and debilitated. The problem at fiberoendoscopy is further complicated by the use of topical pharyngeal anaesthesia and the fact that the endoscope may facilitate vomiting or regurgitation of retained gastric contents present despite prolonged starvation (as in Case 1). These considerations demand that tipping trolleys and suction and resuscitation equipment should be available. There is a growing practice of using diazepam sedation in unstarved patients for minor surgical procedures. In some cases full controlled general anaesthesia may prove safer.

References

- British Medical Journal*, 1970, 2, 377.
 Brown, P. R. H., Main, D. M. G., and Larson, J. I. M. (1968). *British Dental Journal*, 125, 498.
 Brown, S. S., and Dundee, J. W. (1968). *British Journal of Anaesthesia*, 40, 108.
 Clement, A. J., and Hubsch, S. K. (1968). *Physiotherapy*, 54, 355.
 Healy, T. E. J., and Vickers, M. D. (1971). *Proceedings of the Royal Society of Medicine*, 64, 85.
 Sellick, B. A. (1961). *Lancet*, 2, 404.

St. Thomas's Hospital, London S.E.1

P. A. TAYLOR, M.B., B.S., F.F.A. R.C.S., Senior Anaesthetic Registrar
 P. B. COTTON, M.B., B.CH., M.R.C.P., Senior Medical Registrar
 R. M. TOWEY, M.B., CH.B., Anaesthetic Registrar
 A. E. GENT, M.D., M.R.C.P., Senior Medical Registrar