

and was severely distressed with cyanosis and a tachycardia of 120/min. He was tachypnoeic (rate 45/min) with a small tidal volume, using his accessory respiratory muscles, and there was pronounced intercostal recession and supraclavicular indrawing. An immediate needle tracheostomy was performed by pushing a 16G Medicut into the trachea just below the cricoid cartilage. The needle and syringe of the Medicut were then withdrawn to leave the cannula in place. The inspired air was enriched by supplying oxygen from a 24% Ventimask placed over the cannula. The symptoms were substantially relieved and his pulse rate dropped to 100/min and respiratory rate to 25/min. One hour later he had a formal tracheostomy under local anaesthesia, when his stridor was found on biopsy to be caused by oedema around an infiltrating, squamous cell carcinoma of the vocal cords. After a course of radiotherapy to the larynx and surrounding region he was discharged two months later with a tracheostomy.

Comment

This patient developed acute respiratory distress from rapid obstruction of his airway by oedema surrounding a laryngeal carcinoma. A needle tracheostomy was performed with complete success, so that further management could be started and a histological diagnosis made. It is a simple, quick, and relatively atraumatic procedure that needs no complex equipment, in contrast to a formal tracheostomy, which most clinicians would be unhappy to carry out in an acutely ill patient.

There were 13 deaths per million population from respiratory obstruction by foreign bodies in England and Wales in 1974.¹ Although this patient had a neoplastic obstruction of his airway, this technique may also be used in upper airway occlusion associated with pharyngeal foreign bodies, trauma from road traffic accidents, or angioneurotic oedema. Experiments have shown that the 12G (2.3 mm diameter) Medicut can sustain ventilation.² An adequate temporary airway, however, was provided in this man, who already had compromised ventilatory function, by an even smaller 16G (1.70 mm diameter) cannula.

Needle tracheostomy with a Medicut can be used in casualty departments and by general practitioners as well as in a hospital ward. It is a technique that can preserve life and allow time for a formal tracheostomy to be performed in an acute upper airway obstruction emergency.

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¹ Office of Population Censuses and Surveys, *Mortality Statistics, England and Wales 1974*. London, HMSO, 1977.

² Clarke, S W, and Cochrane, G M, *The Practitioner*, 1975, **215**, 340.

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St Olave's Hospital, London SE16

T H LEE, MRCP, junior registrar

Is pancreatic isotope scanning worthwhile?

The clinical role of pancreatic isotope scanning remains controversial,¹⁻³ and reassessment is appropriate in view of the recent development of alternative imaging methods. We have determined the diagnostic accuracy of pancreatic isotope scanning in two hospitals, and surveyed the clinical demand for such tests in 17 British departments of nuclear medicine.

Patients, methods, and results

At St Thomas's Hospital (1972-3) 61 patients were scanned using a Nuclear Enterprises Mark III gamma camera with a high-energy, parallel-hole collimator after injection of selenomethionine; technetium liver scans were performed separately on most patients. Eighty-one patients were scanned at the Middlesex Hospital (1975) using an Elscint whole-body counter and a focused collimator. Subtraction images of the pancreas were obtained after scanning with both selenomethionine and ^{99m}Tc sulphur colloid. Scan reports (normal, abnormal, or equivocal) were given by experienced observers without access to clinical information.

The pattern of patients and results was similar at the two hospitals, and

are combined in the table. Of 65 patients finally believed to have no pancreatic disease, only 27 had a normal scan, and there were 22 false-positive reports. Of 51 patients with a normal scan report, only 27 were finally judged to have a normal pancreas. A normal scan may be expected in many patients with relapsing pancreatitis between attacks, but false-normal reports were also given in six patients with chronic pancreatitis, and three with pancreatic cancer.

Results of isotope scanning at two hospitals

Scan report	Total	Final diagnosis				
		Normal	Relapsing pancreatitis	Chronic pancreatitis	Cancer	Not clear
Normal ..	51	27	13	6	3	2
Abnormal ..	61	22	14	20	5	0
Equivocal ..	29	16	0	5	3	5
Total ..	141	65	27	31	11	7

Believing that the clinical demand for a test provides a severely practical assessment of its value, we asked for data from the 17 full-time British consultants in nuclear medicine concerning the numbers of pancreatic isotope scans performed in their departments during the five years 1972-6, with similar data for liver scanning. The demand for liver scanning was increasing, and no centre was performing fewer than 300 tests per year. By contrast, only five of the 17 centres were performing more than one pancreatic scan each month, and five did not offer the service at all. In those centres performing pancreatic scanning there was no trend to increased demand. Four centres (including St Thomas's and the Middlesex) had discontinued pancreatic scanning after internal assessments of accuracy.

Comment

Assessing the value of different pancreatic diagnostic tests is complicated by the different questions which may be asked, the frequent lack of a firm independent diagnosis, and the fact that results often depend as much on the investigator as on the specific technique. Thus results at one centre may not be applicable elsewhere. Skilled arteriography, endoscopic pancreatography, and computed tomography can now all provide precise and detailed information about the pancreas.⁴ Nevertheless, these complex tests cannot be considered as having a screening role. While most reviewers agree,¹⁻³ and our results confirm that false-positive isotope scans are frequent and that the technique cannot separate pancreatitis from cancer, it would still have screening value if a normal scan was a reliable indicator of pancreatic normality; in our studies it was not. Its lack of a valid clinical role is demonstrated by meagre national demand. Isotope scans may provide some useful information about pancreatic function—for instance, after partial pancreatic resection—but, unless there are major new technical developments, diagnostic scanning is not worth its appreciable cost in time, money, and radiation exposure. Grey-scale ultrasonography provides an alternative screening test of considerable potential.⁵

¹ Baron, J H, in *Topics in Gastroenterology*, volume 3, ed S C Truelove, and M J Goodman, p 129. Oxford, Blackwell, 1975.

² Agnew, J E, Maze, M, and Mitchell, C J, *British Journal of Radiology* 1976, **49**, 979.

³ Mitchell, C J, *et al*, *British Medical Journal*, 1976, **2**, 1307.

⁴ Cotton, P B, *Gut*, 1977, **18**, 316.

⁵ Doust, B D, *Gastroenterology*, 1976, **70**, 602.

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Gastrointestinal Unit and Department of Nuclear Medicine, The Middlesex Hospital and Medical School, London W1N 8AA

P B COTTON, MD, MRCP, consultant physician

K E BRITTON, MD, MRCP, consultant physician

D K HAZRA, MD, research assistant (present appointment: reader in medicine, SN Medical College, Agra, India)

R B STERN, MB, MRCP, medical registrar (present appointment: physician, Melville Hospital, Goose Bay, Labrador, Canada)

Department of Nuclear Medicine, St Thomas's Hospital, London SE1

B A J PONDER, PHD, MRCP, medical registrar (present appointment: CRC Hamilton Fairley Fellow, Sidney Farber Cancer Center, Boston, USA)

D N CROFT, MD, FRCP, consultant physician