Pseudo-obstruction of the Large Bowel

Pseudo-obstruction is probably a bad name—there is nothing pseudo about a disorder which may kill the patient—but the term has passed into common clinical parlance and is unlikely to be changed. It is used to describe the condition which presents the signs and symptoms of bowel obstruction but in which exploration or further investigation shows no mechanical cause for the episode of obstruction. Acute, transient pseudo-obstruction is the most common form; the aetiology is usually uncertain, but acute illnesses associated with its development include congestive cardiac failure and renal failure.

A recent report described 11 patients in detail and emphasized the important features of the condition. One or more of the usual signs of intestinal obstruction are often absent. Vomiting and tenderness were present in only half the patients, three had no pain, three had no constipation, and in four patients the rectum was not empty. In only five patients were the bowel sounds suggestive of mechanical obstruction; in the remaining six they were normal or decreased.

Radiological examination confirmed the presence of bowel distension, which was apparent in all 11 patients: but in only half the patients were unequivocal fluid levels present, and they were much less than would be expected with the amount of bowel distension. Sigmoideoscopy and the passage of flatus tubes have no effect on this condition.

The management of pseudo-obstruction of the large bowel is conservative, provided a firm diagnosis is made. If the diagnosis of pseudo-obstruction seems likely then an emergency barium enema is worthwhile, and it has been suggested that a dilute barium enema which demonstrates the absence of any organic obstruction may also prove to be of therapeutic value. The only indication for operation is gross distension and tenderness of the caecum, suggesting that caecal rupture is a real threat. Often the diagnosis is made only at laparotomy; if no obstructing lesion is found then some form of decompression operation is probably wise, especially in those patients with considerable bowel distension. Tube caecostomy is generally the most satisfactory decompression procedure: it does not require a second procedure to close the vent, and it will certainly obviate the danger of caecal rupture.

The aetiology of pseudo-obstruction is much discussed but not understood. The site of obstruction is nearly always at the junction of a mobile and fixed part of the colon; thus the two most common points are the left side of the transverse colon and the rectosigmoid junction. Possibly some degree of bowel distension causes kinking at the point of fixation, and this "hinge-kink" mechanism may become self-perpetuating and cause a mechanical valvular obstruction. However, the change in bowel calibre is not always abrupt, and in the present series there were several patients in whom the lumen of the colon was noted to taper down to normal over a considerable length. Other theories include abnormalities of colonic motility, which may be produced by alterations in blood flow, perhaps as the result of distension or anoxia; very rarely malignant infiltration of the autonomic nerves on the posterior abdominal wall may be so gross as to produce neurogenic obstruction.

Rats Today

Probably 10% of the world's food supply is consumed or damaged by rats: rice in the East, sugar cane in the West Indies, and flour in Liverpool warehouses. Rats will even eat the grease on the railway points on London's Underground. These vermin are everywhere, so it is little wonder that most strong poisons have been used at one time or another to kill them. In warehouses and ships which can be sealed up during disinfection the results are uniformly good, but elsewhere ordinary poisons may be highly dangerous to human beings and domestic livestock. In open places where food is at risk cats have always played an important part in rat control—even the Port of London Authority regarded the small milk bill incurred for cats as one of its most rewarding expenses.

It may indeed be argued that recent legislation prohibiting cats in food shops and similar places may have been mistaken, as may the prohibition of gin traps on farms, at a time when the British rat population is increasing. The cat sitting on top of a sugar sack in a grocer's shop may be unhygienic, but there is far greater danger to the public health from resident rodents.

Rats no longer transmit plague in Britain (they still could do so), but they cause a disquieting number of spirochaetal infections both in man and animals. It is not always realized that many of these animal infections are communicable to man in addition to the well-known Weil's disease and rat-bite fever. The quite dramatic improvement in the state of health of a pack of hounds once a rat infestation and leptospirosis was eliminated from the kennels was shown recently. Half the rats in this country are believed to carry some variety of spirochaetes.

At the time when the anticoagulant warfarin came into general use over 10 years ago, it was hoped that at last a selective rat poison had arrived, since ordinary domestic animals, with the exception of pigs, are not particularly sensitive to it. (Pigs will eat rats dead from warfarin and may suffer in consequence.) As usually happens in nature after prolonged exposure to toxic substances, resistance developed. What were regarded initially as pockets of resistance have spread to the rat population generally, thus indicating the need for yet another rodenticide.

A small quantity of vitamin D (calciferol) is an essential mammalian dietary requirement, and any deficiency results in low calcium blood levels. Conversely a gross excess of calciferol produces dangerously high calcium levels, and this action provides the basis for a new way of attacking warfarin-resistant rat populations. Warfarin acts by blocking vitamin K metabolism, thereby inhibiting blood clotting; so by giving rats warfarin and calciferol together they die from the effects of too little vitamin K and too much vitamin D. Here it is