

clear. Certainly it occurs as the blood glucose returns towards or past the basal levels, but most workers have been unable to relate the extent of the rise in the hormone to the degree of blood sugar fall. Many maintain that release of the hormone is therefore due to a direct action of glucagon on the hypothalamus or pituitary, but in at least one patient prevention of the fall in blood sugar with a glucose infusion is reported to have blocked the rise in growth hormone.¹⁰ A recent study¹⁴ supports the view that release of growth hormone is indeed related to the fall in blood sugar, for when the blood sugar changes after glucagon were greatly reduced by fasting for 48 hours there was no growth hormone response to glucagon, though the patients still secreted the hormone after arginine infusion. It seems unlikely that the growth hormone response is merely related to stress, since not all patients become nauseated after glucagon.

Most studies suggest that plasma corticosteroids do not rise consistently or specifically after glucagon whether given intravenously or subcutaneously, though others contradict this.^{9 15} The general conclusion may be drawn that insulin-induced hypoglycaemia remains the procedure of choice when investigating the anterior pituitary's capacity to secrete growth hormone, for as a test it is reliable, short in duration, and gives information about corticotrophin reserve as well as growth hormone. When the insulin test cannot be performed, glucagon stimulation provides a good second-line test, probably superior to administration of arginine. But it takes longer to perform than the insulin tolerance test and is rather less reliable.

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Gastric Decompression after Abdominal Surgery

For several decades controversy has surrounded the desirability or need for gastric decompression in the immediate postoperative period after abdominal operations in general and more particularly after operations on the stomach itself. In the 1930s many surgeons adopted suction via an indwelling nasogastric tube, which had been popularized by O. H. Wangensteen and J. R. Paine¹ in the conservative management of intestinal obstruction and paralytic ileus, as part of the routine postoperative care of patients after elective gastric and other abdominal operations. But instead of

using a motor or a suitable arrangement of bottles to provide suction most surgeons preferred to rely on intermittent aspiration with a syringe, which has the advantage of greater simplicity and of providing a regular sampling of the gastric contents.

The main objection to suction by nasogastric tube is the discomfort of the tube to the patient, who usually regards this as one of the more unpleasant aspects of his recovery. Such tubes have also been said to predispose to postoperative respiratory complications by interfering with coughing. And if maintained for long in position they have been thought to lead to peptic oesophagitis and oesophageal stricture by encouraging regurgitation of gastric contents. These considerations have led many surgeons to resort to a temporary gastrostomy instead of nasogastric suction,²⁻⁵ for it spares the patient the inconvenience of an indwelling tube in the nose and pharynx; but according to some surgeons it increases the risks of sepsis in the abdominal wound⁶ and may occasionally result in peritonitis or gastric fistulation.⁷

More recently some surgeons have come to doubt the necessity for any form of routine postoperative gastric decompression. They have been prepared to leave their patients without a nasogastric or gastrostomy tube in the first instance, accepting that in some of them vomiting will require the subsequent passage of a Ryle's tube for gastric aspiration.^{8 9} It has been argued, however, that before the patient reaches the stage of vomiting considerable gastric distention will have occurred, which might expose any gastro-intestinal suture line to an increased risk of disruption.^{4 10}

The relative merits of these regimens are still hotly disputed despite a number of comparative investigations.^{7 11} But these were uncontrolled retrospective studies. Now D. F. Miller and his colleagues at the Victoria Infirmary, Glasgow,⁷ have published an account of a controlled prospective trial of nasogastric tube aspiration, gastrostomy, and gastric decompression in the aftercare of 132 patients treated by vagotomy and drainage. It has shown some interesting results.

Clinical signs of a chest infection were present in 43% of the patients. They were noted in 24 of the 47 who had had a nasogastric tube, in 21 of the 43 who had had a gastrostomy, and in 12 of the 42 who had been treated without gastric decompression. The difference in the rate of chest infection between the group with a nasogastric tube and those with no form of gastric tube is statistically significant. Incidentally this study underlines the role of smoking in predisposing to postoperative chest infection. Of the 57 patients who developed chest infection 51 (89.4%) were smokers, and only 6 (10.6%) were non-smokers.

Wound infection occurred in 6 of the group with nasogastric tube, in 9 of the gastrostomy group, and in 2 of those without a tube. The difference between the rates of infection in the gastrostomy group and the tubeless group is statistically significant.

It is interesting to note the patients' assessment of the discomfort of nasogastric tubes and gastrostomies. Of the 47 patients who had nasogastric suction 14 found the symptoms referable to it "bearable" and 33 considered them "unpleasant" or "distressing"; 19 were of the opinion that a gastrostomy might have been preferable. Of the 43 patients with a gastrostomy 36 described the symptoms relating to it as "bearable," and 40 would choose a gastrostomy again, only 3 electing to change to a nasogastric tube. It should be added that, of the 43 treated initially without gastric decompression, only one had to have a Ryle's tube passed subsequently because of vomiting.

It would seem from this study that the lesser discomfort of a gastrostomy than of a nasogastric tube is offset by the greater risk of abdominal wound infection with the former. The winner would appear to be the tubeless routine, which had fewer of either of these troubles than the other methods and did not exhibit any other disadvantages. But whenever a surgeon has the slightest doubt about the soundness of a gastrointestinal suture line he will always be well advised to leave in a nasogastric or gastrostomy tube for suction as a precaution against leakage.

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Legal Aspects of V.D. in Teenagers

In his annual report¹ for the year 1971 the Chief Medical Officer commented that the main epidemiological concern was still the increase of gonorrhoea in young people. There was a total of 10,510 cases in teenagers (4,522 in boys and 5,988 in girls) as compared with 9,685 cases (4,186 in boys and 5,499 in girls) in 1970. In particular, there were 529 cases of infection under 16 years (129 in boys and 400 in girls) compared with 475 in 1970 (80 in boys and 395 in girls).

Gonococcal infection of the young is an even greater problem in the United States, as was emphasized in an article by J. D. Nelson² appearing appropriately in a paediatric journal. He opened by quoting a public service advertisement by Blue Shield stating that "in 1971 about 300,000 nice kids reported cases of syphilis and gonorrhoea." He continued by saying that legal obstacles to treatment of minors had been removed in many states. As an example his own state of Texas had passed legislation in 1969 permitting physicians to treat minors for venereal disease without parental consent. There was thus, for instance, no legal obligation on the physician to inform parents that their son or daughter had gonorrhoea which required treatment, but he might feel certain ethical responsibilities to the family, and these would depend on his relationship with them. The author considered this was something that each physician would have to decide for himself in individual cases.

If cases of gonorrhoea in teenagers continue to rise in Great Britain many general practitioners and physicians in clinics will be faced with similar problems, so it may be of interest to consider their options in relation to the law of this country. A letter dated 31 December 1969 and sent by the Department of Health and Social Security to secretaries of regional hospital boards and boards of governors under the heading "Consent to Treatment" went as follows:

"(1). The purpose of this letter is to draw to the attention of hospital authorities those provisions of the Family

Law Reform Act 1969 which affect the treatment of patients in hospitals. The Act implements inter alia the main recommendations of the Report of the Committee on the Age of Majority which was published in July 1967.

"(2). Section 8 of the Act deals with consent to treatment by minors. It comes into force on 1 January 1970.

"(3). The Section requires no explanation except possibly Sub-section 3. This recognizes that it may continue to be possible to treat as effective a consent given by a person under 16 years of age; e.g. if that person has sufficient mental capacity to know what the consent implies."

A statement concerning section 8 para. 3 was also made by the then attorney-general, Sir Elwyn Jones, in the House of Commons, during the discussion on the Family Law Reform Bill.³ Doctors may also be helped by consulting a booklet "Consent to Treatment" published by the Medical Defence Union; and they may refer to the National Health Service (Venereal Diseases) Regulations, 1968, para. 3, though here no specific age limit is mentioned. It is best to make every effort to persuade patients under 16 years of age suspected of having a sexually transmitted disease to confide in one or other parent. However, if they refuse, there are certainly disadvantages in still informing parents, as this action may increase the chance of the patient's defaulting and also make it more difficult for the doctor or clinic to obtain the patient's co-operation if his or her name is given as a contact on a subsequent occasion.

Each case has to be judged on its merits, with no probability of legal action lying against the doctor if he has acted in good faith. There does not, therefore, seem to be any need at present to amend the law in this country, as has happened in parts of the United States.

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New Virus Infections

Two new viruses which belonged to the polyoma subgroup of the papovaviruses were isolated from cases of human disease in 1971. The first virus was isolated by B. L. Padgett and his colleagues in Wisconsin¹ from the brain of a patient with progressive multifocal leucoencephalopathy. The second—BK virus—was grown from the urine of a patient with ureteric obstruction after renal transplantation, by Sylvia D. Gardner and her co-workers in London.² Both viruses differed serologically from the two other members of the polyoma subgroup—namely, polyoma virus (a mouse tumour virus) and SV 40 (a virus found in monkey kidney³ and highly oncogenic for hamsters), though BK virus showed a minor antigenic relationship to SV 40.

But recently there was a new and surprising sequel to this story when L. P. Weiner and his colleagues in Johns Hopkins University⁴ reported that they had isolated a papovavirus identical with SV 40 from the brain of two patients with progressive multifocal leucoencephalopathy. Neither patient had been exposed to SV 40 in poliovaccine (some early batches of which were contaminated with SV 40), and since this was the only known source of contact with the virus in the United States it was difficult to know how they could