TABLE II

	Selective vagotomy	no pyloroplasty no stenosis
1	○	○
2	+	+
3	+	+
4	○	○
5	+	○
6	+	○
7	○	○
8	+	+
9		○
10	+	+
11	○	○
12	○	○
13	+	○
14	○	○
15	○	○
16	+	+
17	○	○
18	○	○
19	+	○
20	○	○
	3	6

12 months after operation

so long as nerve section is complete and the nerves of Latarjet properly preserved. It is a very much better operation than bilateral selective vagotomy without drainage for it can be used in the presence of organic duodenal narrowing. Probably only in advanced duodenal stenosis is a drainage operation required.—I am, etc.,

HAROLD BURGE

Charing Cross Group of Hospitals,
West London Hospital,
London, W.6

- 1 Amdrup, E., Amdrup Bente, M., and Griffith, C. A. *Fourth World Congress of Gastroenterology*. Advance Abstracts, p. 430.
- 2 Griffith, C. A., and Harkins, H. N., *Gastroenterology*. 1957 32, 96.
- 3 Johnston, D., Humphrey, C. S., and Wilkinson, A. R., *Proceedings of Association of Surgeons of Great Britain and Ireland*, 1970.

Controlling Gastric Acid

SIR,—Your leader "Controlling Gastric Acid" (28 November, p. 510) states "Anticholinergic drugs act by reducing vagal activity. They are fully effective only when given in doses which cause undesirable side effects such as drowsiness, dryness of the mouth, blurring of vision, and difficulty with emptying the bladder." All this is true when these drugs are given in single doses. But when they are given four times a day, in the maximal dose that gives no side effects as determined by gradual escalation, the result is different. For example, Mitchell *et al.*¹ compared the reduction of acidity of the gastric contents obtained with atropine or poldine at doses that produced no side effects. The study was double blind, and the mean duration of the treatment was seven days with each drug given four times daily. The mean reduction in acidity of the gastric contents after ordinary food was 60% with atropine and about 80% or more with poldine.

Seidelin² studied gastric secretion of acid with doses of poldine that produced no side effects. Using the augmented histamine test he found a reduction of gastric secretion of acid by 50% after the patients had been treated for about three weeks. He pointed out that the reduction was close to that achieved with the augmented histamine test after vagotomy and gastroenterostomy. Hunt and Douthwaite³ gave poldine four times a day at doses which gave no side effects;

gastric secretion in response to test meals was reduced by half. These authors also noted that the full effect of poldine took up to three weeks to develop on continuous dosage.

Whether or not poldine is clinically effective is a matter of opinion.⁴ However, it does seem to be established that at doses adjusted to the patient a reduction of gastric secretion of acid by 50%—nearly equal to that produced by surgical vagotomy—is commonly obtained without side effects. Moreover, increasing the dose to that which gives side effects does not in our experience reduce gastric secretion further.

There is a substantial body of clinical opinion in favour of anticholinergic drugs such as poldine, if these are used properly. While argument continues about the scientific evidence it is unreasonable to assume that experienced clinicians are necessarily mistaking the placebo effect for pharmacological active, particularly as there are good theoretical reasons for expecting anticholinergic drugs to benefit these patients.—We are, etc.,

J. N. HUNT

Department of Physiology,
Guy's Hospital Medical School,
London S.E.1

T. M. L. PRICE

Lewisham General Hospital,
London S.E.13

- 1 Mitchell, R. D., Hunt, J. N., and Grossman, M. I., *Gastroenterology*, 1962, 43, 400.
- 2 Seidelin, R., *British Medical Journal*, 1961, 1, 1079.
- 3 Douthwaite, A. H., and Hunt, J. N., *British Medical Journal*, 1958, 1, 1030.
- 4 Hunt, J. N., and Price, T. M. L., *Practitioner*, 1967, 198, 156.

SIR,—With reference to your recent leading article entitled "Controlling Gastric Acid" (28 November, p. 510) we have studied the effect of an inhibitor of histamine synthesis (NSD 1055, Smith and Nephew) on canine gastric acid secreted from total gastric and Pavlov pouches. In several short-term and long-term experiments, NSD 1055 (25 mg and 100 mg/kg body weight) was administered and acid secreted in response to sub-maximal doses of bethanecol and pentagastrin was measured. Up to date we have been unable to demonstrate any reduction in acid output. Details of this work will be found in a paper which is now being prepared for publication.—We are, etc.,

GEORGE DICKSON
CRAWFORD W. JAMIESON

Surgical Unit,
St. Mary's Hospital,
London W.2

Management of Cancer

SIR,—Public criticism of the lack of acceptance by the medical profession of apparently encouraging responses from the Bavarian clinic of Dr. Joseph Issels is natural as a first reaction. Now that the mysterious cloak has been removed it appears that of a "random" sample of one-third of 750 cases, only a further one-third, or 88 cases, meet the requirements of accurate analysis. Of these, only 18% (16 cases) were alive at 5 years (26 December, p. 760).

It is now, surely, the important duty of every doctor to give information to anxious relatives and to explain what orthodox medicine can do. In a completely unselected series of patients with very advanced and

recurrent breast cancer hormone control¹ alone produced an objective remission in over 60% of all patients at 6 months and 50% at 1 year. With additional treatment a further half of this group without visceral metastases (one-quarter of all such cases) were living at 5 years. There is now a whole list of types of cancer with 5-year survivals, many of which were deadly to the last generation: these include 64% of liposarcomas²; 85% or more of patients with cancer of the body of the uterus^{3,4} when efficiently treated by intracavity radiation are usually free of active growth at operation, and even advanced cases do relatively well; 95% of patients with seminoma of the testis, which is supremely radiosensitive, are alive at this time.⁵ Advances in the treatment of malignant melanoma have produced a survival rate comparable with breast cancer—excellent in the early and far from hopeless in the advanced.

Every clinic dealing with much malignant disease has proved star cases; good examples are:

- (1) 20 years' survival from metastatic bone disease in the pelvis from the breast. Some treatment has been given in the meantime but the patient is well and doing a full-time job (androgens and radiotherapy).
- (2) 15 years' survival from substantial metastatic disease in bone from a recurrent thyroid cancer in the neck. This patient has just retired from an arduous full-time job and is very well (radiotherapy and thyroxine).
- (3) 15 years' survival from true Hodgkin's disease, first in the neck and then five years later forming a large mass in the left groin. Now normal (radiotherapy alone).

The question is, how often can these star cases be produced? After discussion with several of my colleagues of considerable experience, the figure has been put as high as 10%. Surely this is a triumph for British medicine in dealing with such advanced cases? The next question is what methods are employed in obtaining these star results, because they do not come easily. These methods include the following:

- (1) Preliminary chemotherapy by intra-arterial infusion combined with the use of an isotope-timed neutralizer to spare the bone marrow and the immune state (for example, nitrogen mustard locally and thiosulphate intravenously).
- (2) Chemotherapy as a preliminary to radiation⁶ to render the neoplasm more vascular and smaller—and so more curable. Both, or either, of these methods may be combined with raising the oxygen concentration, either using a hyperbaric tank or giving a drip of dilute hydrogen peroxide.
- (3) Surgical procedures may utilize local chemotherapy to prevent recurrence, or employ electrocoagulation destruction if complete excision should prove difficult.
- (4) The use of "split course" irradiation, to take advantage of the improved vascularity during treatment and the employment of more accurate and improved methods of irradiation,⁷ so lessening the immunological damage.⁸
- (5) In widely disseminated or highly undifferentiated tumours, or both, the use of systemic chemotherapy—for example, in chorion-epithelioma⁹ or seminoma—and, as a preliminary to immunotherapy—for example, with *Corynebacterium parvum* vaccination.
- (6) Immunotherapy by the local application of smallpox vaccine or systemically by intravenous T.A.B. with subsequent pyrexia.
- (7) Careful attention to the general condition—blood transfusion; correction of metabolic defects; graduated exercises; and, most important of all, hope and encouragement.

Lastly, the vital decision is when to do