GASTROSCOPY OF THE OPERATED STOMACH*

L. M. WESSELS, M.D. (CLIN.), *Pretoria*

SUMMARY

Using as a basis the respective number of operations which had been performed on a group of patients gastroscopically examined, the conclusion is reached that the Billroth type II is the most undesirable operation of the ones currently in vogue.

Since the Gastro-enterology Unit at the H. F. Verwoerd Hospital was established in 1966, until the end of June 1970, a total of 1 926 gastroscopic examinations were performed. Of the stomachs examined, 212 (13%) showed evidence of previous operations. In other words, a considerable proportion of patients who had been subjected to stomach operations had residual symptoms severe enough to bring them back for re-examination. Furthermore, among the stomachs examined, certain operations were very much more in evidence than others. This finding could be interpreted in various ways.

Firstly, these operations had possibly been done more frequently than others. Assuming that a certain proportion of all stomach operations were unsuccessful to about the same degree, one would anticipate that the ones most frequently performed would produce the largest number of patients dissatisfied with the results of their operations.

It was therefore decided to obtain from theatre records a list of all stomach operations performed over a certain period, and compare the percentage distribution of operations seen on gastroscopy, with that of the same procedures actually performed during the period under review. The incidence of unsatisfactory results should fairly closely parallel the number of the various operations actually performed: in other words, the percentage of poor results for each operation should approximate the percentage of that operation of the total performed, unless other factors influenced the results.

Of the 212 operated stomachs seen, the distribution of operative procedures was as follows: Billroth type I: 50 (24%); Billroth type II: 116 (57·7%); pyloroplasty: 30 (14·4%); and gastro-enterostomy: 12 (5·8%).

The aftermath of only 4 operations of other types was seen, so that it was decided to ignore them, and calculate the percentage of 208 cases.

In the theatre register, a sample period was chosen from March 1967 to 31 August 1969 because the records for this period happened to fill 2 volumes of the register. The total number of the abovementioned 4 operations performed was 223, with a distribution as follows: Billroth type I: 45 (20·2%); Billroth type II: 60 (26·9%); pyloroplasty: 105 (47·1%); and gastro-enterostomy: 13 (5·8%).

It will be seen that as regards both the Billroth type I operation and gastro-enterostomy, the incidence in our patients is approximately what one would anticipate.

However, of the Billroth type II operations far more than anticipated are seen at gastroscopy, and of the pyloroplasty, far fewer. This leads to speculation about the cause of the significantly high incidence of poor results after the Billroth type II operation.

Either the operation had undesirable *sequelae* in a high proportion of cases or some process of selection is involved. Selection may occur because of the difficulty of interpreting, with confidence, the radiological findings in stomach pumps, which leads the radiologist to suggest gastroscopic investigation. However, the number of patients actually referred at the instigation of the radiological department was too small to be significant.

TABLE I. GASTROSCOPIC DIAGNOSIS IN 116 CASES OF BILLROTH TYPE II OPERATIONS

Ulcer	Stomal	7	
	Gastric	10	
	Jejunal	4	21
Gastritis	Non-specific	33	
	Atrophic	2	
	With erosions	13	
	With reflux	5	53
Diverse	Narrow stoma	2	
	Pseudo-polypi	3	
	Carcinoma	3	
	Failed gastroscopy	4	12
No pathology seen		30	30
	Total		116

It would thus appear that the majority of stomachs which had been operated on in the Billroth type II manner had some kind of inflammatory lesion. Reflux of duodenal or jejunal contents into the stomach was unusual during the examination, but this does not, of course, exonerate reflux as the culprit, and further studies are being undertaken in an effort to solve the problem.

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