THE ELECTIVE MANAGEMENT OF GASTRIC ULCERATION*

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There is general agreement that in the elective management of duodenal ulceration the initial treatment should be conservative, and that surgery should be reserved for those cases that relapse or develop complications.

In the elective management of gastric ulceration, however, many clinicians prefer operative[1-3] rather than conservative treatment,[4-7] as the risk of missing a carcinoma is claimed to be high. It is also said that there is a risk of serious complications occurring during the period of conservative treatment, or subsequently, should the ulcer recur.

Because our impressions did not coincide with these views, we have reviewed our results.

SUBJECTS AND METHODS

Two hundred and thirty cases of proved gastric ulceration were available for assessment. These patients had all attended, or are still attending, the gastric follow-up clinic at the Johannesburg Hospital. They represent patients who received their initial treatment in the professorial surgical unit, or patients who had received their initial treatment elsewhere and were referred subsequently to the gastric follow-up clinic for some specific reason.

For the purpose of this investigation, the patients were divided into 2 groups. In the first, the initial treatment was conservative and for this purpose the patient was admitted to the professorial surgical unit.

In the second group the initial treatment when admitted to hospital was surgical. In the first group carcinoma was excluded as far as possible. Barium meal, acid secretory studies and exfoliative cytology were done in all cases and gastroscopy with gastric biopsy wherever considered necessary. If, on the basis of these tests, malignancy was a possibility, operation was advised without delay. If malignancy was not likely, the rate of healing on conservative treatment was used as a further test.

At the end of 3 weeks of treatment the barium examination was repeated. If the ulcer size had decreased by 50% this was accepted as evidence that the lesion was probably benign and conservative treatment was continued. At the end of a further 3-week period of such treatment, the ulcer was again assessed radiologically, and if complete healing had taken place the patient was allowed home. Surgery would be advised if the ulcer size had failed to decrease by 50% after the first 3-week period, or if the ulcer failed to heal completely after 6 weeks of conservative treatment.

The method of conservative treatment was to have the patient in bed for 3 weeks in hospital. Frequent, small, bland meals were given, and between meals the patient received antacid every 2 hours. Anticholinergics were not used, as these drugs may cause gastric stasis with subsequent release of gastrin from the pyloric antrum. The patients were sedated with phenobarbitone, the dose being sufficient to cause drowsiness for most of the day.

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Elective surgery was the initial treatment when it was not possible to exclude carcinoma with reasonable certainty and in those cases where there were other complications, especially obstruction or gastro-intestinal bleeding. The usual operation was a Bilroth I gastrectomy.

RESULTS

In the 10-year period 1959 - 1968, 85 patients were treated initially by conservative methods and 145 surgically. Of those treated surgically, 64 were emergencies and 81 underwent elective procedures.

Of the 85 patients whose initial treatment was conservative in the professorial surgical unit, 9 out of 44 cases adequately followed-up relapsed after medical treatment, but 32 remained well and did not come to surgery. One patient died of a cerebrovascular accident while on medical treatment.

In the group of 32 patients who remained well after initial conservative treatment, the longest known follow-up at the gastric clinic was 5 - 6 years in two instances. A further 11 have been seen for from 1 to 4 years, and the remainder have been followed-up for a shorter period.

In 63 out of 81 cases treated initially by elective surgery, the indication for surgery was failed medical treatment given elsewhere. In 17 cases surgery was undertaken as carcinoma could not be excluded with reasonable certainty, and in one case the indication for surgery was pyloric obstruction. Two patients died in hospital—one after operation for a possible cancer, and one after operation following failed medical treatment. The hospital mortality rate in this group was therefore 2·3% (2 out of 81).

DISCUSSION

This investigation was undertaken to assess the results of the elective management of gastric ulceration, especially those patients who had received a course of initial medical therapy in the professorial surgical unit.

It is realized that the follow-up is incomplete and probably represents a selected group. For this reason a statistical analysis would not be significant. Certain facts, however, do seem to be worthy of comment.

Nine out of 44 of our patients relapsed after their initial conservative treatment. In this group, no case of carcinoma was missed. It therefore appears that, provided all currently available methods are used to exclude malignancy, it is unlikely that a carcinoma will be overlooked.

In this same group of patients who relapsed, no emergency operation was necessary, and there was no mortality from a complication of the ulcer or from surgery. It thus seems that medical treatment under well-controlled conditions is not dangerous to the patient.

If the group of patients undergoing elective surgery for gastric ulceration is considered as a whole, the hospital mortality rate was 2 out of 81, i.e. 2·3%.

Thirty-two out of 44 patients receiving medical treatment initially have not relapsed, and attend the follow-up clinic at regular intervals. These people have therefore avoided the risks of gastric surgery.

It is clear that a certain number of cases of gastric ulceration will relapse and require surgery after adequate medical treatment, but so far it has not been possible to predict which case is likely to relapse. The relapse rate of gastric ulcers is probably less than that of duodenal ulceration, yet in the latter there is general agreement that conservative treatment should be tried initially.

It is therefore suggested that where no definite indication exists for immediate operation in a case of gastric ulceration, conservative treatment is safe. Many cases will never require surgery, and in those patients who relapse elective surgery can be carried out under the most favourable conditions.

As regards the type of operation, the usual procedure that we have used has been a Bilroth I gastrectomy. Vagotomy and drainage has not been employed, as a high incidence of recurrence has been reported,[8] though good results over a 7-year period have been claimed.[9] The case for vagotomy and drainage as the operation of choice in gastric ulceration has been strongly stated by Burge.[10]

SUMMARY AND CONCLUSIONS

The results of medical management and surgical treatment of gastric ulcers are discussed. Because of a limited follow-up no attempt is made to present these data as a statistically meaningful survey.

It is recommended that, provided malignancy is excluded and complications do not exist, gastric ulcers should be treated conservatively, and that operative treatment should be reserved for those cases which fail to heal, or relapse after successful conservative treatment.

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