PRELIMINARY OBSERVATIONS ON HEMIGASTRECTOMY WITH SUBDIAPHRAGMATIC VAGOTOMY FOR THE AVERAGE CASE OF CHRONIC DUODENAL ULCER

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ABOUT two years ago, it became clear to my colleagues and me that subdiaphragmatic vagotomy with posterior gastroenterostomy was not a completely satisfactory answer to the problem presented by the patient with a "surgical" duodenal ulcer (one for which surgery is indicated). At that time studies showed that 5 per cent of patients followed at least five years required a second operation for ulcer. Although the procedure has a very low mortality rate —in our experience less than one-half of one per cent—the rate of failure seemed too high for us to continue performing this operation for the average elective case. Accordingly, we decided to change to subdiaphragmatic vagotomy with hemigastrectomy. This promised a more reliable relief of the ulcer diathesis, yet preserved enough stomach to avoid most of the ills common to the post-gastrectomy state. However, in an effort to maintain a low mortality rate, comparable to that of the simpler operation, we also decided to continue to do vagotomy with posterior gastroenterostomy in those patients whose condition was such that it seemed that gastric resection would appreciably increase the surgical risk. About four of every five vagotomized patients have had a partial resection since this policy was started, and the other one of every five, a gastroenterostomy.

Although many years will have to pass before the program can be finally evaluated, definite impressions already have been gained. Since this program was adopted there has been no evidence, clinical or otherwise, of recurrent ulceration in any of our 120 patients who had hemigastrectomy with vagotomy. These findings are consistent with those of surgeons who have had wider experience with vagotomy with hemigastrectomy.

So few patients have lost weight or have been unable to gain weight after vagotomy and hemigastrectomy that apparently in this regard results of this operation will be comparable to the similarly favorable results following vagotomy and posterior gastroenterostomy. Other side effects such as diarrhea, or the "dump" syndrome likewise have proved uncommon. But the record as regards operative mortality is not as good. During the last year two patients died in the immediately postoperative period following hemigastrectomy with vagotomy. These were the first deaths after operations for chronic duodenal ulcer since 1950, the year when vagotomy with posterior gastroenterostomy became the standard procedure on my service. The patients were relatively young men (48 and 34 years old), and both had had severe, penetrating duodenal ulcers.

The first patient died of a coronary thrombosis proved at autopsy; the second died of hemorrhagic pancreatitis that, at autopsy proved to be unrelated, in continuity at least, to the turn-in of the duodenal stump. One cannot be certain of the relationship between the resections and the fatal complications but, in the case of the patient who had hemorrhagic pancreatitis it is fair to assume that he might have lived if the lesser procedure of gastroenterostomy had been substituted for the gastric resection. These two operative fatalities yield a mortality rate for vagotomy and hemigastrectomy in this personal series of 61 cases of about 3 per cent. This contrasts with no postoperative deaths among 123 patients who had vagotomy with posterior gastroenterostomy.

Comment

The early results of vagotomy and hemigastrectomy in selected cases appear to be fairly good—with the exception of two operative fatalities neither of which was necessarily related directly to the resection itself. It is gratifying to note the absence so far of recurrent ulceration, but a long-term study is needed to include possible late recurrences. The low incidence of severe side effects is probably definitive, since these in general appear promptly after operation. It would seem that vagotomy with hemigastrectomy is not as incapacitating to bodily economy as is a radical gastric resection.

Although these early results may be described as encouraging, late results may affect the final conclusions. For example, we may ultimately come to the decision that vagotomy and posterior gastroenterostomy—with a calculated chance of about 5 per cent for secondary gastric resection—is the best procedure for the average case of chronic duodenal ulcer. Or, we may become so skillful in predicting the likelihood of recurrent ulceration, that a partial gastric resection will be required only in a minority of patients with duodenal ulcer.