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EDITORIAL ARTICLE

PEPTIC ULCER IN NEPAL

The patient has to be selected for operation before the surgeon can select the operation. When should the physician and the surgeon advise operation for a case of chronic duodenal ulcer and which criteria should be fulfilled for the patient to have earned his operation. There is general agreement that if pyloric stenosis has persisted, if medical treatment has failed to control the symptoms adequately, if pain recurs after simple closure of a previous perforation or after haematemesis or melaena, an elective operation should be advised, of course after carefully assessing any disability in the patient which increases the risk of operation. Difficulty arises in deciding when the medical treatment has failed. First the physician has to decide on the best medical treatment for a patient of chronic duodenal ulcer, then both the physician and the surgeon have to satisfy themselves that the medical measures have been conscientiously applied. If then the relapses of typical ulcer dyspepsia have become more frequent, more severe and prolonged or intractable, the patient has certainly earned his operation. Number of years over which the patient has been symptomatic cannot be a criterion for automatic selection because periodicity of ulcer dyspepsia varies from one patient to another and even in the same patient. A patient who enjoys long remissions of upto a year at a time and whose symptoms are readily controlled by antacids is better not advised operation except for reasons of complications. Besides, unless we date the symptoms from the day the diagnosis of chronic duodenal ulcer was proved radiologically, in Nepal there is fallacy in assessing the duration of symptoms, in years, of a case of duodenal ulcer diagnosed perhaps a few months before admission into the surgical wards. Dyspepsia in the remote past may have been due to amoebiasis and other diseases prevalent in the subtropics, or even due to recurrent intestinal infections leading to a degree of malabsorption. Concomitant pathology such as chronic pancreatitis may be present. Of 403 cases operated for vagotomy—gastrojejunostomy at Raxaul, 19 also required a cholecystectomy.

If the patient of chronic duodenal ulcer is the earning member of his family and the relapses are hampering his work or causing loss of wages, relief of his symptoms by operation should be offered even if the patient has not quite earned his operation according to other criteria. Also if there is a strong family history of peptic ulceration in the patient's immediate relatives, there is a strong likelihood that operation will eventually be required

gastrectomy has never been attempted for a perforation. It is not known whether there were any cases of perforated gastric ulcer. Conservative treatment was carried out where there was just a "leak" into the peritoneal cavity and also in cases which came after established generalised peritonitis. We would welcome a discussion about conservative treatment of perforation and what proportion of these cases needed operation and whether some of the "leaks" may have been cases of acute cholecystitis and acute pancreatitis. Mortality figures are not given but the author states that a large number of patients diagnosed as perforated peptic ulcer and treated without operation responded.

In most cases of partial gastrectomy for chronic D.U. Dr Strong could not invaginate the duodenal stump due to extensive scarring and induration. Out of 330 partial gastrectomies, 8 had reoperation in the immediate post-operative period, for "duodenal blow out." Mortality figures are not given, but "duodenal blow out" has been the other cause of serious morbidity, apart from chest complications.

Occurrence of chest complications in cases which were done under spinal anaesthesia shows, what is widely known, that general anaesthesia per se is not the cause of them. We should have very much liked to know the incidence of chest complications due to spinal anaesthesia in the partial gastrectomy, vagotomy-GJ and cholecystectomy series with a discussion of mortality and morbidity rate due to such complications.

M.S.

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WHY NOT WRITE FOR IT

ly produce relief in a few minutes. In the typical case the interval of freedom is long and later several attacks may occur in a year with scarcely a fortnight's freedom. Many patients complain that spicy or greasy foods are more likely to cause pain but this is non-specific of many disorders of upper digestive tract. Some are upset by carbohydrates such as sweets. In both duodenal and gastric ulcers, smoking, a bout of irregular diet, worry, jealousy, fear of poverty and inclement weather are believed to aggravate the symptoms or bring an attack. In England the incidence, is lower among clerks and civil servants and higher among doctors, business executives and foremen. Is there a seasonal variation in Nepal in the attacks of dyspepsia and incidence of perforation? Gastric ulcer is even less regular in periodicity than duodenal ulcer both in its timing of pain during the day and its seasonal variations through the years.

Such studies will enlighten and guide qualified doctors in Nepal in developing clinical criteria and in advising radiological studies or operation. There is truth in a rather cynical remark once made by a radiologist friend in Great Britain. "If you don't assess the symptoms and just catch 100 men on the road for Barium meal examinations there may be as many cases with duodenal deformity as I am finding now." He was having to perform many more "Barium meals" since the time the radiology department had been directly accessible to general practitioners in that area. Of course failure to find an ulcer on radiological examination cannot be lightly accepted as excluding ulceration or an organic disease to account for the symptoms which have been carefully assessed. However it is reasonable to expect a diagnostic accuracy of over 90% in Barium meal examination and our radiologists try hard to help the clinicians by aiming at a 100% accuracy. But if clinicians and radiologists jointly review ulcer patients, (which may mean the clinician attending the Barium meal examination of his case) gross disparity between the x-ray findings and the clinical history, for instance an apparently normal Barium meal in a patient with convincing symptoms of duodenal ulcer, will suggest repetition of the x-rays later, besides the other advantages such as the clinician learning more about interpretation of x-ray pictures.

There is need for developing regular discussion between physician, radiologist, pathologist and surgeon about cases just as there is need for clinicopathological meetings and "post mortem" discussion in the members of the firm on each and every death under care of the firm. Both the radiologist and the physician may benefit by attending the operation of their cases of peptic ulcer. Various aspects in the symptoms may be correlated, for example the severity of scarring and the pseudo-diverticulum formation due to chronic duodenal ulcer or the back pain and lack of intervals of freedom with the penetration into pancreas. This is like talking of ideals to be attained. If the government policy was not to believe in private practice as the main source of a specialist's income but was to encourage them to concentrate on hospital practice by giving them part of the money from the paying wards, an entire hospital could thus be run without financial deficit and for the benefit of patients. And is it not upto us whether we are officially first, second, or third class doctors, to encourage improvements in medical practice in Nepal-for the sake of our patients as well as of Medicine?

Of the other tests a patient of peptic ulcer may undergo, we may discuss the role of gastric analysis. The traditional fractional test meals have too many fallacies to be of any use and have been given up. Use of the Augmented Histamine test of Kay or its modifications in choosing a particular operation for a case of chronic duodenal ulcer is probably limited to those cases which show very high maximal secretion—those cases may have a subtotal gastrectomy or a Hemigastrectomy with vagotomy if recurrent ulcers are to be avoided. But unless this test is carried out as a routine, we won't be able to correlate high maximal secretion as the cause of recurrence after vagotomy, gastrojejunostomy or partial gastrectomy. Study of basal secretion either overnight (Dragstedt) which gives a valuable index of vagal activity or as part of Kay's test is useful. The occasional case of Zollinger Ellison Syndrome is best diagnosed pre-operatively—in the Dragstedt test, volumes in excess of a litre occur with Free HCl value of 100–300 meq. Completeness of vagotomy should also be tested at least in a few cases, if not as a routine in all cases for vagotomy, by performing the Hollander Insulin test meal post-operatively—the blood sugar level has to fall to 30mgm and vagotomy is incomplete if consecutive specimens show HCl 20 meq. or more per litre. Physiologists have not been able to explain why gastrojejunostomy alone in the past cured 60% of chronic duodenal ulcer with most satisfied patients. It is only the careful long term follow up which revealed that, over 20 years, 40% developed some symptoms. In some cases the evidence of recurrence was an attack of dyspepsia or haemorrhage which was not massive. Only in 20–25% there was persistent recurrence of ulcer. Unless the vagotomy has been complete, we would not know for certain whether the gastrojejunostomy itself has produced the satisfactory result. Vagotomy with gastrojejunostomy was reintroduced about 15 years ago. Although 25 years follow-up studies such as Tanner's for gastrojejunostomy alone, are not available yet for vagotomy—figures of 5–7% of true anastomotic ulcer, most of them appearing within 2 years are quoted. All of us may agree that if long term follow up studies are also made for Vagotomy, the incidence of recurrence in cases where vagotomy-drainage is performed as a routine for chronic D.U. could be higher. This is the reason for the cautious enthusiasm among gastro-surgeons about this operation. As far as other remote sequelae are concerned, they are well known for partial gastrectomy which has been widely practised for 30–40 years whereas we are not yet sure of other remote sequelae of vagotomy. Gastrojejunostomy alone will however remain the operation of choice in the elderly, specially women, with pyloric stenosis whose acidity remains low after 10 days of thorough gastric lavage.

Another reason for caution with vagotomy-drainage is that in partial gastrectomy specially for chronic gastric ulcer the remnant is more likely to develop carcinoma than the normal stomach. There is a latent period of 15–20 years. Is the stomach after vagotomy and drainage also more likely to develop carcinoma after the latent period? Perhaps not likely but we should like to be certain.

There have been a few well planned papers published from India eg. Malhotra's study of duodenal ulcer among Railway employees, published in the "Gut." Otherwise difficulties in following up cases are a serious handicap, in the Indo-Pakistan-Nepal subcontinent, for indigenous studies of the subject of peptic ulcer. Tanner once referred to a paper published

in India on a series of 2000 gastrojejunostomies alone as treatment of chronic duodenal ulcer which unfortunately could not show whether the incidence of recurrence was any different in India compared to say Great Britain. Not only duodenal ulcers of one country could vary from those of another country in their response to a particular operation but peptic ulcers of today may, possibly, vary from those of 40 years ago in recurrence rate after G-J alone, just as they vary in the sex incidence and the comparative frequency of duodenal versus gastric ulcer. It is a matter of sadness for Medicine in Southern Asia that the vast work involved in such a large series was not of great research value and besides rendering variable degree of relief to the patients involved, mainly demonstrated quantitatively the technical skill of the surgeon.

Mortality figures of an operation, as a matter of fact, demonstrate retrospectively that working under particular circumstances on a particular group of patients, a particular surgeon in that number of cases, had performed a successful operation but the patients died. Strictly speaking one surgeon's figures are not comparable with those of another surgeon operating under different circumstances, with different selection of patients and a different postoperative care. Just as for a patient undergoing an operation it is no consolation to know that the operation, with 1 in 10 mortality, has been successfully performed in all the previous nine cases, national or regional mortality figures for an operation are a statistical average like an average family having 3.5 children or average husband having 1.3 wife. Donald Kemp's paper in "Gut" from West Middlesex Hospital, London was about all the operated peptic ulcer cases of Mr Ferguson who used partial gastrectomy as a routine with the same pre and post-operative regime and operative technique in all cases, without any operative mortality. (Has anyone in Nepal got all the volumes of this good journal?) Having known both the author and the surgeon personally, I can vouchsafe for Mr. Ferguson not having gone deliberately anti-national regarding the mortality figures. I am only making the point that operative mortality is usually because somewhere something has slipped up. A national mortality figure of an operation is constituted of a hotch potch of patients operated under a hotch potch of circumstances. For comparison of one operation against another, figures of the same surgeon are more relevant.

While we get round the lack of follow up for the present by keeping ourselves up-to-date about the trends in countries like Great Britain and USA and following them with suitable modification according to local conditions, perhaps it is worth pointing out that for the benefit of future research in Nepal a prospective study having complete notes accordingly is more valuable than a retrospective study based on incomplete notes which could be to some extent supplemented by memory only in a personal series.

In this issue two papers on peptic ulcer in Nepal by well-known surgeons are welcome. Both papers were read in the 4th All Nepal Medical Conference of our Association. Dr. Sharma's paper is an analysis of the total number of cases of peptic ulcer admitted in the surgical wards of HMG Hospitals in Kathmandu in the last 8 years. The other paper by Dr. T.N. Strong is based on cases at Raxaul on the Nepal-India border.

Both the papers emphasize the serious difficulties in following up cases in these areas. Both papers make the significant point that vagotomy-gastrojejunostomy for chronic duodenal ulcer "seems tailored to the dietary habits of the people who are accustomed to large bulky and twice daily meals." Dr. Strong points out that (compared to partial gastrectomy) vagotomy-GJ was safer and could be done even in poor risk patients; there was complete absence of any serious complaints in those who came back to see the surgeon; there was no post vagotomy diarrhoea.

In the Kathmandu study, about one quarter of the cases were of gastric ulcer and three quarters of duodenal ulcer—their analysis sexwise is not shown. In UK now, duodenal ulcer is 5 times more common in males than in females whereas in gastric ulcer the difference is only 2 times. These differences become rapidly less after menopause has passed. In women incidence of peptic ulcer is low all over the world and duodenal ulcer is about as frequent as gastric ulcer. The ratio of duodenal to gastric ulcer in Scotland is higher and in India a figure of 30 to 1 is quoted. Peptic ulcer is rare before the age of 16 years in UK.

The Raxaul study states that peptic ulcer is extremely common in that area—10% of outpatients had it while 9% of major operations were for it. (In England in the group 45-54 years, 10% have P.U.) But the incidence of gastric ulcer is very low—out of 926 cases operated in the last 9 years only 7 were found to have gastric ulcer the rest had duodenal ulcer, whereas in the last 4 years there were 25 cases of carcinoma stomach. Seasonal variation is shown—twice the number of patients came during October to March compared to the months April to September. Of the total 2376 "Barium Meal X-rays" in the last 3 years, 1125 showed D.U.

Incidence of admission of cases of Haematemesis and Melaena into the surgical wards of Kathmandu H.M.G. Hospitals was an average of 3 per year. Of the eight personal cases of Dr. Sharma analysed, seven required operation which in one case was a "blind gastrectomy." Of the remaining six, three had gastric ulcers and 3 duodenal ulcers. In Raxaul several bleeding patients recovered with medical treatment and had non-emergency operations. Only one case of bleeding needed an emergency operation. A considerable number came with pyloric stenosis but bleeding ulcers were much less frequent and Dr Strong felt that in Raxaul duodenal ulcers stenose rather than bleed. Incidence of pyloric stenosis in Kathmandu is not known. Possibly there were no cases, both in Kathmandu and in Raxaul, of pyloric obstruction which turned out only at operation to be due to carcinoma.

In the Kathmandu study operation after resuscitation was the routine for perforated ulcers. Duodenal ulcers had either a simple closure or closure with vagotomy gastrojejunostomy. Some cases of perforated gastric ulcer had a partial gastrectomy. Paradoxically the mortality of simple closure was 35% while that of closure with vagotomy-GJ. 16%. A drain was left in for 48 hours.

In Raxaul, only those cases of perforation which came within 8-10 hours were operated. If the general condition is satisfactory a vagotomy GJ is performed, leaving a drain only when frank pus is present—a proportion of early cases had vagotomy-GJ. A partial