

EDITORIAL

THE ROLE OF SURGERY IN THE MANAGEMENT OF PEPTIC ULCER DISEASE IN THE LAST THREE DECADES

Thirty years ago the standard diagnosis of peptic ulcer disease was by barium meal and the standard treatment consisted of antacids, dietary measures, rest and advice regarding stress avoidance. This "medical" treatment often failed and surgery had to be resorted to, either because the ulcer was "intractable" or because of complications: bleeding, perforation and pyloric stenosis.

The Billroth gastrectomies I and II, for over 50 years the mainstay of the surgical treatment of peptic ulcer disease, had already been phased out and truncal vagotomy and one or other form of pyloroplasty has become the elective procedure of choice.

Because truncal vagotomy has led to troublesome diarrhoea in up to 10% of instances, selective and superselective vagotomies have been introduced, which, indeed, have reduced the diarrhoea rate but have in turn been frequently incomplete and have not denervated the acid producing mucosa adequately, hence failing in their objective.

The first major change in the treatment of peptic ulcer disease came about when with cimetidine a drug became available that has reduced acid production. The introduction of cimetidine and later ranitidine has diminished the role of surgery dramatically and by the 1980s vagotomies have largely disappeared from the theatre lists. Lastly, with the arrival of omeprazole the concept of an "intractable" ulcer has lost its meaning.

In the meantime endoscopy began to displace barium meal as the principal diagnostic tool in peptic ulcer disease. Endoscopy afforded the opportunity for biopsy and soon therapeutic manipulations followed such as the various techniques to stop bleeding, particularly the infiltration of the bleeding ulcer and its surrounds with vasoconstrictor drugs.

The discovery of *Helicobacter pylori* 20 years ago and the unravelling of the relationship between this micro-organism and peptic ulcer disease have, yet again, changed the treatment schedules. The direct observation of *Helicobacter* in the biopsy material gained in importance and increasingly displaced other laboratory tests.

In the meantime the epidemiology of peptic ulcer disease - incidence, prevalence, age and sex distribution and the relative frequency of complications continued to change as it has for the last 150 years, independently from treatment and rather inexplicably, except that the widespread use of NSAIDs, particularly in elderly people, added a new set of circumstances.

Whilst it can be said that in the western world, or rather in the rich world, surgery for peptic ulcer disease, except for the occasional perforation (which can be, and is, with increasing frequency, also treated

conservatively) is a rarity, this is not so in the third world and particularly not so in the rural situation.

Where there is no endoscope the only way to stop life-threatening bleeding is by means of open surgery. Where there is no endoscope and no facility to perform barium studies, some ulcers may escape diagnosis and lead to pyloric stenosis.

Under sub-optimal conditions perforation should be treated by means of surgery, rather than conservatively.

The question remains: is there ever an indication "in the bush" for an elective operation, say a vagotomy and pyloroplasty? Is there such a thing as an intractable ulcer?"

There are certainly individuals who take "ulcer medication" as a matter of course for years and years. Some of the instances may be considered as "intractable" in the sense that continuous long-term treatment is required. This in itself is no absolute indication for surgery. However, the drugs may not always be available and, in any case, the drugs are expensive. There may well be situations when elective surgery should be contemplated. Unfortunately there is a new limiting factor: many trainee surgeons have never seen a vagotomy!

Kuremu's study published in this issue of the journal sheds light on the situation as it pertains to the Moi teaching and referral hospital in Eldoret. His findings will probably bear extrapolation to the third world situation at large: unrecognised and inadequately treated peptic ulcers are still a problem leading to pyloric stenosis. Perforation is the most common complication. The almost complete disappearance of bleeding as an indication for an emergency surgery is perhaps explained by the presence of endoscopes and capable endoscopists in Eldoret. It is likely that in "bush hospitals" bleeding ulcers still represent a surgical emergency. Interestingly in Kuremu's study of 53 patients there was only one "refractory ulcer". This finding suggests that even in the third world, if properly treated, ulcers are rarely intractable.

In conclusion, whilst in the last three decades, in the rich world the role of surgery in the management of peptic ulcer disease has diminished to the point where the indication to operate has become exceptional, in the poor country situation surgery still has an important role, although even in the poor world the entity of "intractable ulcer" has become a rarity.

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