Gastrointestinal Hemorrhage after Renal Transplantation


On account of the great frequency, 11%, and seriousness of gastrointestinal bleeding after renal transplantation, Gordon and coworkers (1972) studied the gastric secretion of 56 patients on maintenance dialysis in an attempt to find preoperative indications for possible bleeding complications afterwards. BAO, MAO and PAO were determined by means of a standard pentagastrin test. All 56 were prospective renal transplant patients. On the whole the values found were higher than in the mean population. However, there were eight patients, who had achlorhydria and in three of them X-ray examination showed a gastric ulcer. Eight patients were hypersecretors with an abnormally high acid production. One of these had a slightly abnormal duodenal X-ray picture. Endoscopies were not performed. Among this group of 56 patients seven cases of hyperparathyroidism were diagnosed: one had a hypo- and one a hypersecretion.

Comments

This study suggests that apart from uremia, immunosuppressive drugs, corticosteroids and anticoagulants, a preexistent abnormal gastric acid secretion enhances the risk of gastrointestinal hemorrhage after renal transplantation. The authors therefore recommend an assessment of the gastric secretion before renal transplantation as well as an acid reducing operation, such as vagotomy, in case of hypersecretion. The risk of this operation is slight compared with the high mortality rate of emergency surgery in a bleeding transplantation case.

Vetter, Zaruba and Scheitlin (Schweiz. med. Wschr. 101: 1893, 1971) support this conception. Moreover, they found an increase in gastric acid production, as measured by pentagastrin stimulation, after transplantation in 17 patients. Unfortunately, they could only examine the patients, who had had no major complications after transplantation. As there were many serious and often fatal gastrointestinal hemorrhages in their group of transplantation patients, these authors too consider a prophylactic reduction of gastric acid secretion a useful and possibly even necessary procedure, before a renal transplantation is performed in a so-called hypersecretor.

In view of recent interest in the importance of the mucus layer, it will be of interest to determine in future work also the composition of the mucus in these patients. In the article the type of vagotomy is not mentioned, after truncal vagotomy impairment of motor and resorptive function of the small intestine can be expected. It will be of interest to know the influence of this dysfunction on the efficiency of the maintenance dialysis. It seems that the prevention of these postvagotomy symptoms indicate that only a selective vagotomy is indicated.

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Response from the Authors
There are a few details that require comment. The mean values of peak and output were higher than a normal population only in females not in males. It is also important to point out that the three patients with gastric ulcer were in the overall group of hyposecretors but did not have complete achlorhydria, otherwise the ulcers would have been malignant. Endoscopy was performed in those with a gastric lesion or achlorhydria but not in all patients. We fully agree that any prophylactic vagotomy should be selective and would go further and suggest that this situation is a good indication for a proximal gastric vagotomy (highly selective vagotomy) without pyloroplasty. This avoids the risk of opening the stomach in a dialysis patient and the risk of increasing the reflux of duodenal juice into the stomach leading to a gastritis in a patient who will be on steroids. It is more difficult to recommend a prophylactic operation for the hyposecretors but they are also at risk from gastric erosions and haemorrhagic gastritis after transplantation. E. M. Gordon