The Diagnostic Value of Gastric Aspiration in Haematemesis

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Summary

A study of immediate hourly gastric aspiration in 42 patients with haematemesis was thought to yield both diagnostic and prognostic information and to be free from adverse effects.

The bedside observation of blood staining in the aspirated specimens is sometimes of great value in the management of patients as further haemorrhage can be detected before other clinical criteria indicate its presence, and its absence is sometimes of assistance in the identification of ulcer site.

A study of the acidity of aspirated specimens has shown that high nocturnal acidity is usual in chronic duodenal ulcer, that nocturnal neutralisation is found more frequently in bleeding than in uncomplicated gastric ulcer, while achlorhydria is observed at the time of haemorrhage in acute peptic ulceration, the acid frequently returning after several days observation.

The finding of achlorhydria in the acute stages of gastrointestinal haemorrhage is thought to be an added indication for continued medical treatment.

Discussion

Dr. Avery Jones: I have found acute gastric ulcers in nearly half of the "x-ray negative" admissions for haematemesis and melaena when they were gastroscoped during the first 10 days after admission. The technique used by Watkinson and Chandler was clearly of value in distinguishing the duodenal cases from the acute lesion group which in his experience also carried a high incidence of achlorhydria and diminished acid secretion. With duodenal bleeding it was possible to get continued bleeding with the intestine and yet be unable to recover any from gastric aspiration.

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Circulation of Blood in the Rat's Stomach

Prof. Harold Rodgers: We have had a few cases recently in which gastroscopy has been carried out while the patient was still bleeding, and it has sometimes been of value in determining whether the bleeding was from a single or multiple source. In one case especially we saw multiple small haemorrhages from the gastric mucosa. No harm appeared to come from immediate gastroscopy.

Mr. Hermon Taylor felt that continuous gastric aspiration in the treatment of gastro-duodenal haemorrhage was of fundamental importance. It was his practice to combine this with gastroscopy whenever there was any doubt as to the precise source of the bleeding. He approached a case of gastro-duodenal bleeding from the point of view of one who might have to operate on the patient later in more desperate circumstances. To him it was fundamental that precise information as to the existence and site of a bleeding ulcer must be obtained as soon as possible while it could be done without distressing the patient. It was therefore his practice to

gastroscope all cases of acute haematemesis and melaena and he pointed out that the gastroscopist had a much better view of the stomach than the surgeon, even with the stomach open at laparotomy.

There was a unfortunate tendency to deal with haematemesis and melaena on a statistical basis, relegating for surgery by rule of thumb elderly patients and those with hypertension, since these were the groups with a high mortality on medical measures. Such considerations were of no help at the bedside of an individual case, where the immediate need was to know whether bleeding was going on in that particular patient at that particular moment. The only way to find this out was by repeated aspiration from an indwelling naso-oesophageal catheter in the stomach. This tube could be used for drip feeding, but could be aspirated at intervals to find out whether there was any recurrent bleeding, so that operation could be undertaken before the patient had lost a pint or more of blood into his intestine and had collapsed a second time. He admitted the risk of deducing too much from gastric aspiration when the lesion was in the duodenum. He felt that Dr. Chandler's paper, showing the persistent high acidity which seemed to be associated with a duodenal ulcer, even when it was bleeding was a great help in segregating these cases from, for example, bleeding erosions in the stomach.

Circulation of Blood in the Rat's Stomach

Presentation by P. H. DICKINSON of a Film prepared by J. A. KEY

A film was shown demonstrating blood flowing in the small vessels of the stomach wall of rats under normal conditions of observation and after certain ulcer stimuli (pyloric ligation or vagal stimulation) had been applied to the animal. Under normal conditions the blood flow is seen to be smooth, rapid, and continuous, and individual blood cells cannot be distinguished. Following the appli-