A CASE OF MALLORY-WEISS SYNDROME

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SYNOPSIS

A patient with the Mallory-Weiss Syndrome successfully treated by surgery is reported. The condition is reviewed.

INTRODUCTION

Acute gastro-intestinal haemorrhage forms a not inconsiderable proportion of emergency hospital admissions. Many of these cases respond satisfactorily to conservative management, giving time for the exact cause to be determined by subsequent investigations. A significant minority, however, comes to surgery and in some of these, the cause of the bleeding may only be found after a careful and thorough search.

CASE REPORT

The patient, a man aged 37 years, was admitted to the Med. Department because of haematemesis.

He gave a history of having been to a Chinese dinner the evening before admission, when he had taken a considerable amount of alcohol. On returning home, he felt nauseated and vomited undigested food and alcohol. The following morning, i.e. the morning of admission, he woke up and vomited again—more undigested food. He then went to an outdoor dispensary and while waiting to be seen, he vomited bright red blood. He was referred to hospital and on arrival, he vomited bright red blood again. On each of these two occasions he vomited about a cupful of blood, but his general condition was satisfactory. Soon after admission, however, he started to vomit again, almost continuously, bright red blood; his B P fell to 100 systolic and pulse rose to 120/min. He became cold and sweaty.

He gave a history of indigestion for a few years for which he was taking patent antacids.

Following resuscitation with blood transfusion, a laparotomy was carried out. No peptic ulcer was found, the liver was macroscopically normal and there were no varices. A gastrotomy was performed, examination of the interior of the stomach showed no acute erosions and the bile refluxing from the duodenum was clear. Extension of the gastrotomy and examination of the upper part of the stomach revealed 3 longitudinal fissures—approx. 5 mm., 10 mm. and 15 mm. in length—situated on the right oesophagogastric border extending from oesophagus into stomach. The fissures had extended into the whole depth of the mucosa and blood was oozing out from them, although there was no torn vessel seen. The fissures were sutured with atraumatic silk.

Post-operatively the patient recovered without any complication.

DISCUSSION

The condition of bleeding from oesophagogastric tears following repeated vomiting was first described by G.K. Mallory and S. Weiss in 1929 when they reported four cases. They reported 2 more cases in 1932 and another eleven in 1953 giving a total of 17 cases up to 1953 when no other report was available. All these cases, however, were post-mortem cases, the patients having died from intractable bleeding or irreversible shock.

The Mallory-Weiss syndrome, as the condition came to be known consists of one or more longitudinal fissures around the circumference of the cardiac orifice. The tears vary from 2 to 20 mm. long, may be confined to the gastric side or may extend into the oesophagus. In depth the tears involve the mucosa and submucosa, and spare the muscle which distinguishes it from Boerhaave syndrome which is an oesophageal perforation with a similar aetiology. Microscopic examination of the fissures shows the floor to be composed of fibrin and polymorphs with no evidence of chronic tissue reaction.

The history is characteristic. There is a long bout of excessive alcoholic intake which is

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followed by repeated vomiting. The vomiting, initially bloodless, soon becomes bloodstained and then frank blood.

The aetiology, as originally postulated by Mallory and Weiss, is still generally accepted today. During vomiting, the pylorus closes and gastric contents are ejected out by the raised intra-abdominal pressure. Due to an incoordination of relaxation of the cardiac sphincter, the contraction of the stomach forces its contents against a closed cardiac sphincter and causes the tears. Mallory and Weiss had devised an experiment to substantiate their theory. An intact stomach with oesophagus and duodenum was removed. The pylorus was ligated, the stomach filled with water and the oesophagus then occluded. The stomach was then squeezed with great force. On removal of the oesophageal occlusion, lacerations were seen across the gastro-oesophageal junction. The alcohol itself may have an adverse effect on the gastric mucosa.

The incidence of Mallory-Weiss syndrome as a cause of gastro-intestinal bleeding is not known. It is difficult to determine because undoubtedly many cases survive with conservative management and on recovery Ba meal examination is negative; also some cases which die may not have a post-mortem examination or else the lesions missed at autopsy. Podgorny and Linder in 1971, quoting from the papers of Palmer, Dorsey, Foster and Read, collected 2048 cases of acute upper gastro-intestinal bleeding with 47 cases of Mallory-Weiss syndrome, giving an incidence of about 2%. The highest incidence was 4·3%, from the series collected by Palmer from Texas.

Treatment

This consists of resuscitation by blood transfusion. Where the bleeding fails to stop, laparotomy is usually carried out. The lesions will only be seen following adequate exposure of stomach by a gastrotomy. The fissures are then sutured.

In cases where the pre-operative diagnosis has been made by oesophagoscopy, the Sengstaken tube may be used. There is a theoretical risk of the balloon extending the tear both in length and in depth. Sometimes, however, a patient may refuse surgery only to consent later. By this time, the tissues around the fissures may be too friable for suturing, and one may have to resort to the use of a Sengstaken tube, inserted under vision (at gastrotomy).

These patients are commonly alcoholic and are poor surgical risks. They may also refuse surgery. I.V. vasopressin has been tried and may stop the bleeding, but it is contra-indicated in coronary disease.

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