

Hemorrhage is a common symptom, occurring in a third of the cases, and the blood may be either vomited or passed in the stools, or appear in both.

CASE VIII.—*Gastric symptoms for seven or eight years ; attacks of severe gastralgia ; prolonged periods of freedom : hemorrhage from stomach and bowels.*

M. I., aged 40, patient of Dr. F. W. Campbell. This case was remarkable for the long duration of the symptoms, the severe gastralgic attacks, and the remarkable periods of freedom from troublesome symptoms. He had on several occasions hemorrhage from the bowels without hæmatemesis, and this feature of the case led Dr. F. W. Campbell and Dr. R. P. Howard to suspect that the condition was one of duodenal, not gastric, ulcer.

*Autopsy.*—Moderate emaciation. In abdomen, stomach appears a little dilated ; lower coils of small intestine dark-colored. Nothing special in thorax. Stomach somewhat dilated ; walls of moderate thickness. Mucous membrane pale ; at the cardiac end, thin. Pyloric orifice is narrowed, admitting the little finger to the second joint. When slit open, there is no special thickening ; but the mucosa is puckered, and presents an elevated ridge. Duodenum : Part immediately outside the ring much narrower than adjacent regions, measuring only 3·7 cm. About 10 m. from the pylorus there is an oval ulcer 2·5 by 1·8 cm., extending in direction of axis of gut, and occupying chiefly the posterior section of the tube. It is deep, with rounded edges, which, toward the upper and back part, are undermined for about 6 m. In places the floor of the ulcer is quite 6 or 7 m. below the level of the mucosa, and presents a tolerably smooth, fibrous appearance. The head of the pancreas forms the base of the lower three-fourths, the upper part is protected only by the thin muscular walls of the first piece of the duodenum, the peritoneal surface of which, at the site of the ulcer, is puckered and cicatricial. Immediately in the centre of the floor is a small, dark, blood-stained elevation, consisting chiefly of fibrin. On injecting water through the hepatic artery, small clots are washed out at this point, and the water flows freely into the ulcer through an