Etiologic Factors in 500 Cases of Bleeding Peptic Ulcer

M. LEVRAT, M.D., R. LAMBERT, M.D., and F. MARTIN, M.D.

This paper is a report of our experience with 1791 patients with peptic ulcer over a period extending from 1944 to 1960 at the Hospital Edouard Herriot in Lyons, France. The report concerns only patients with a definite diagnosis, either radiologic or operative, of peptic ulcer. Of these, 500 had 1 or more episodes of gross hemorrhage, evidenced by either hematemesis or melena. In 429 patients the bleeding episode was responsible for hospitalization, and in 71, hemorrhagic complications were revealed in histories. The rather high incidence of hemorrhage, 28 per cent, is explained by the fact that only hospitalized patients were considered, rather than outpatients with a generally milder disease.

BLEEDING: RELATION OF SOME FACTORS

Site

Of these 500 patients, 184 had gastric ulcers, 253 had duodenal ulcers, and 16 had both gastric and duodenal ulcers. In the 47 other patients, the exact site of the ulcer was not determined. These patients had either been operated upon and the site of the ulcer not mentioned, or they were observed during a bleeding episode and X-rays were nondiagnostic as to the location of the ulcer.

The site of the ulcer did not influence the frequency of bleeding in the individual patient. The overall incidence of hemorrhage was slightly higher for gastric ulcers. Among 1598 patients with a single gastric or duodenal ulcer, bleeding occurred 184 times (28.7 per cent) in 640 patients with gastric ulcers, and 253 times (26.9 per cent) in 940 patients with duodenal ulcers. It should be pointed out that the postbulbar duodenal ulcer was more frequently responsible for bleeding than ulcers in other locations. Of a total of 51 postbulbar ulcers, 27 (52.9 per cent) were hemorrhagic.

Sex

Bleeding peptic ulcer was encountered in a higher proportion of females. Of 359 females, 33.4 per cent bled; of 1432 men, 26.5 per cent had bleeding episodes.

From the Division of Gastroenterology, Hospital Edouard Herriot, Lyons, France.
Age

The patient's age had little influence on the incidence of bleeding, which did increase slightly after the age of 60. For 0-20 years of age, the incidence of bleeding was 25.7 per cent; for 20-40 years, 25.7 per cent; 40-60 years, 26.9 per cent; and 60 years or more, 32.6 per cent.

Family History

The existence of ulcer diathesis in a patient's family history had no bearing on the incidence of hemorrhage.

Race

In our series of patients, North African Moslems constitute a well-defined ethnic group. Of 184 Moslem patients, only 16 (8.7 per cent) had a history of bleeding. This relatively low figure may be related, among other things, to the absence of alcoholism in this group of patients.

Climate

The monthly distribution of 549 bleeding episodes in our 500 patients with hemorrhagic peptic ulcer (Fig. 1) reveals an appreciably greater incidence in winter, especially in December. On the other hand, acute attacks of ulcer disease tended to occur more often in the autumn (Fig. 2). Why bleeding should occur more often during the winter is not entirely clear. Numerous explanations have been offered. We suggest that a possible factor may be the greater use of acetylsalicylic acid during the winter.

Fig. 1. Seasonal variations of hemorrhage in peptic ulcer (monthly average in 549 bleeding episodes in 500 cases).