

**Symptoms as an Indication for Surgical Treatment of Duodenal Ulcer**—Richard J. Earlam, The London Hospital, London, England

The complications of duodenal ulceration such as hemorrhage, perforation, and pyloric obstruction can be quantitated easily and may themselves be positive indications for surgery. The majority of patients accept operation on the basis of their indigestion alone, but this is so difficult to quantitate that most doctors avoid the problem. Consequently, assessment of the results of different surgical procedures is rendered almost useless because the initial patient populations differ so much and the threshold for advising surgery is incredibly variable. It is no use replacing symptom assessment with acid output figures, since no patient has yet been known to complain that his maximal acid output is too high.

The epigastric pain reproduction test<sup>1-4</sup> was a genuine advance because it consistently reproduced one type of duodenal ulcer pain and because it could be quantitated using the amount both of perfused acid in the lower esophagus and of alkali needed to relieve the pain. Although this was the experimental proof that one component of ulcer pain could arise from the lower esophagus, it did not exclude the fact that stimulation of the duodenal ulcer itself could produce pain or alter the threshold of pain sensation in the lower esophagus. Therefore, unless quantitative pain reproduction tests for each particular type of pain are made available, clinical assessment remains the most important method.

In this study, 100 patients with a radiologic diagnosis of duodenal ulceration were compared with 100 control patients in an attempt to discover any clinical factors that might be useful for measuring the severity of indigestion. The results of a questionnaire were analyzed by computer.

Nocturnal pain occurred in 88% and not only was the most frequent single clinical symptom but could be measured also. Factors that could influence night waking were studied, such as the time and size of the evening meal, the time of going to bed and being awakened, the number of pillows, the amount of gastroesophageal reflux, the type, depth, and length

of sleep, and waking by other events. Night waking was unaffected by any of these factors and also occurred regardless of the anatomic site of the pain. In this particular series, 27 patients were awakened seven times in any 1 week of indigestion; 24, 2 to 3 nights a week; 21, 1 to 2 nights a week; and 15, less frequently. It is suggested that a useful assessment of the severity of duodenal ulcer pain could be made by simply stating how frequently a patient was awakened in any 1 week of indigestion. This figure, combined with the number of years that the pain had existed, would give a simple numerical quantitation of symptoms.

It is my experience that, in the absence of complications, the threshold for advising surgery lies at waking 3 to 4 nights a week. Grade 7 disease almost always necessitates surgery, but grade 0 or 1 is not usually severe enough to warrant an operation. It would be a circular argument to follow this plan in order to assess the usefulness of nocturnal waking. But perhaps surgeons could continue their present method of advising patients and simultaneously could record the duration of symptoms, the frequency of night waking, and the presence of complications, in an attempt to assess nocturnal waking as the only objective measurement of the severity of duodenal ulcer pain that will enable comparisons to be made among medical centers.

REFERENCES

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