Trends in Diagnosis, Etiology and Treatment of Duodenal Ulcer

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A review of the constantly changing subject of Peptic Ulcer reveals certain interesting and perhaps significant "Trends" in diagnosis, etiology and treatment.

DIAGNOSIS

In diagnosis (a fundamentally necessary prerequisite to treatment) there seems to be a trend away from "nonchalant guesses," "hunches," "snapshot" or "machine made" diagnoses and toward rational scientific decisions based upon careful and repeated observation and study of all pertinent (and at times seemingly impertinent) information gained by (a) history, (b) physical examination, (c) clinical and (d) X-ray laboratory findings.

Submitted June 23, 1948.

All of which presumes familiarity with and knowledge of a multitude of facts and fancies concerning the disease.

An understanding of abnormal functions calls for a knowledge of normal physiology, which is constantly increasing and far from simple.

Gastrointestinal function depends upon various mechanisms viz. (A) Nervous: The relationship between the cerebrospinal system and the constantly changing balance between the two divisions of the autonomic nervous system (the internal environment) and the variable external environment.

(B) Gastric, mechanical, chemical, and a possible hormone "Gastrin."

(C) Intestinal, hormonal.
With balance and synchronization between these various controls normal symptomless function occurs; without which, abnormal function produces "symptoms" which lead to treatment.

Many different conditions may be associated with similar "digestive symptoms" e.g. esophageal, gastric, duodenal ulcers, erosion or cancer, gastritis and duodenitis, hiatus hernia, diverticulae, gall bladder, liver, pancreatic and colon disease.

The facts that hyper and hypochlorhydria may produce similar distress, that the "pain, food, ease" sequence may not be diagnostically reliable, that gastrointestinal hemorrhage does not necessarily mean ulcer, that classical symptoms may exist without demonstrable ulcer, and that ulcer may exist without suggestive symptoms, create confusion and lead to diagnostic errors.

A familiarity with the results of both treated and untreated disease and a distinction between remissions and "cures," are necessary.

But a diagnosis of so-called peptic ulcer is not enough; its location, gastric, duodenal or elsewhere is called for.

But, in turn, a diagnosis of gastric ulcer is not enough; a distinction between malignant and nonmalignant is imperative. It is difficult and at times may be impossible, before microscopic examination.

The fact that an undetermined per cent of gastric (in contra distinction to duodenal) ulcers are, or become, malignant, (1) Justifies Dr. Allen's conclusion that "Gastric ulcer is primarily a surgical lesion" (2).

Other necessary diagnostic details are: Is the ulcer acute, chronic, growing healing, simple, complicated, penetrating, bleeding, obstructing, "intractable," single or multiple?

Not only correct but complete diagnosis is called for. Coincidental disease must be recognized.

(a) The "sheet anchor" of diagnosis is the "history," story of the chief complaint, i.e. the endless variety of pain, tenderness, "gas," so-called "dyspepsia," "indigestion" etc. etc.

These subjective symptoms are "Nature's" attempt to speak through the patient to the physician. The language is often difficult for the patient to express, and also for the physician to understand. Therefore the history must be secured and recorded, not by a stenographer or clinical clerk, but by the physician himself, with the check and double check, by judicious cross questioning.

The stomach has been called the "sounding board" for disturbances in other organs of the body.

It is well known that extra-gastric disease, such as acute heart, lung, kidney or cerebrospinal lesions may, reflexly, produce acute abdominal symptoms; but the fact that chronic disease of these same organs may produce chronic abdominal symptoms that may, at times, be confused with peptic ulcer, has not been equally emphasized.

A reversed "sounding board" reaction in which gastric lesions cause remote symptoms and asymptomatic peptic ulcer, are recently being recognized.

All of this necessitates consideration, not only of the stomach and duodenum, but of the entire gastrointestinal tract with its offshoots and the many other organs and systems of the body, i.e. "the patient as a whole" with his reaction to the external environment.

(b) Physical examination is of comparatively little aid. Localized tenderness and rigidity or muscle spasm will be helpful.

(c) Routine clinical laboratory findings are important. The presence or absence of Hydrochloric acid after histamine is valuable. Achlorhydria suggests cancer, but the presence of hydrochloric acid does not exclude malignancy.

(d) X-ray barium examination, when included with the history, case records, and laboratory data, is always valuable and often conclusive. But a picture of a shadow when considered alone, may be misleading. Fluoroscopy is essential and of more value than films, which should be chiefly for record and comparison. Because of possible reflex spasm, repeated examinations after antispasmodics may be indicated. The meal should be observed through the entire gastrointestinal tract and, in obscure cases, a "check-up" by barium enema is indicated.

Cholecystography should be routine in so-called "gastrointestinal examinations."

The term "X-ray diagnosis" might well be abandoned and the term "X-ray findings" be substituted.

Realizing the necessity of early diagnosis if results in cancer are to improve St. John, Swenson and Harvey (3) employed mass fluoroscopy after barium meals as a method of "screening" similar to mass chest films in detecting pulmonary tuberculosis, but it was considered impracticable.

The suggestion of such "mass fluoroscopy" in cases of achylia seems worthwhile.

The trend seems to be, in obscure cases, to collect, organize, analyze and study all available information in an attempt to improve diagnosis.

Etiology

A rational concept of cause is a necessary preliminary to successful treatment. The cause of peptic ulcer is evidently not single, but multiple, differing with the individual and upon circumstances. Their mere enumeration, neurogenic, vascular, inflammatory, toxic, mechanical, traumatic, dietary deficiency, endocrine, allergic, constitutional, hereditary etc. etc. speaks against a single cause.

The occurrence of peptic ulcer in infancy; the