The treatment of chronic peptic ulceration has changed considerably during the 1980s and 1990s. Elective operations for duodenal ulcer disease had previously dominated the clinical practice of a generation of abdominal surgeons. The incidence of the disease has changed and significant advances have been made in our understanding of its pathogenesis. Medical treatment and indications for surgery and surgical treatment have also changed. Elective operations have become very rare today.

There is a widely held misunderstanding that the introduction of cimetidine into clinical use, together with the other histamine H2-receptor antagonists that followed, has been responsible for the decreasing incidence of duodenal ulcer. In fact, there are no data to support this belief. On the contrary the incidence of duodenal ulceration has been declining in the Western world in the past four decades, which is long before the introduction of cimetidine. Studies from different sources support this observation. From 1970 to 1978, hospital admissions in U.S. hospitals for the treatment of duodenal ulcer were reduced by more than 40%. This reduction was mainly produced by the uncomplicated ulcer, not from the patients admitted with hemorrhage or perforation. Unlike duodenal ulcer, hospitalization and mortality rates for gastric ulcer were not reduced.

The introduction of histamine H2—receptor antagonists and proton pump inhibitors in the medical therapy of peptic ulcer modified the clinical manifestation of the disease significantly, although its natural history remained unchanged. The recurrence rate without maintenance treatment was very high. There was no significant reduction in the number of patients operated on for complications, and the mortality rate from these complications was not reduced despite the fact that a healing rate of more than 90% could be achieved with antisecretory treatment.

The identification of the importance of Heliobacter pylori infection in the ulcer diathesis, along with the dramatic reduction of the recurrence rate after its eradication, seems that it will change the natural history of the disease and that its complications will become less frequent.
Surgical treatment of peptic ulcer can be divided into two groups:
1. Treatment of uncomplicated ulcer
2. Treatment of the complications; namely bleeding, perforation, and obstruction

**Laparoscopic Treatment of Uncomplicated Ulcer**

Indications for elective surgical treatment of peptic ulcer have been restricted to:
1. Patients with intractable ulcer after an intensive medical treatment
2. *H. pylori* negative patients with relapsing duodenal ulcer

Although gastric ulcers and duodenal ulcers are often commonly felt to have common manifestations they have few pathophysiologic features in common. This fact, together with the possibility of cancer in cases of gastric ulcers that are unresponing to medical treatment, imposes different goals in the operative therapy.²

**Duodenal Ulcer**

The main goal of elective surgical treatment of duodenal ulcer should be alteration of the ulcer diathesis by reducing the acid secretion in a way that results in ulcer healing. Associated goals of the operation are the patient's safety, minimal ulcer recurrence rate, and freedom from chronic postoperative side effects. The ideal operation should be equally safe and effective, preventing recurrent ulceration and postoperative disability. As there is no such operation, the choice is based on the hierarchy of the various goals of the operation between:

- Truncal vagotomy with or without drainage
- Truncal vagotomy and antrectomy
- Proximal gastric vagotomy
- Posterior truncal vagotomy and anterior seromyotomy

Since its introduction by Dragstedt and Owens in 1943, Truncal vagotomy, combined with pyloroplasty, gastrojejunostomy, or antrectomy, has become and has remained the most popular surgical approach for duodenal ulcer therapy. As in the original series of patients, drainage procedure was advocated by Dragstedt because gastric outlet obstruction was observed in some cases. It has been proposed that this problem can be solved without a drainage procedure by pneumatic dilatation of the pylorus, resulting in rupture of the oblique and circular muscles, and giving a widely patent channel.⁵ With this modification one can avoid the side effects of pyloroplasty or gastrojejunostomy. Recurrent ulcer rates following