

# THE SURGEON'S LIBRARY

THE HISTORY AND SURGICAL ANATOMY OF THE VAGUS NERVE

Lee J. Skandalakis, M.D., *Chicago, Illinois*, Stephen W. Gray, PH.D.,

and John E. Skandalakis, M.D., PH.D., F.A.C.S., *Atlanta, Georgia*

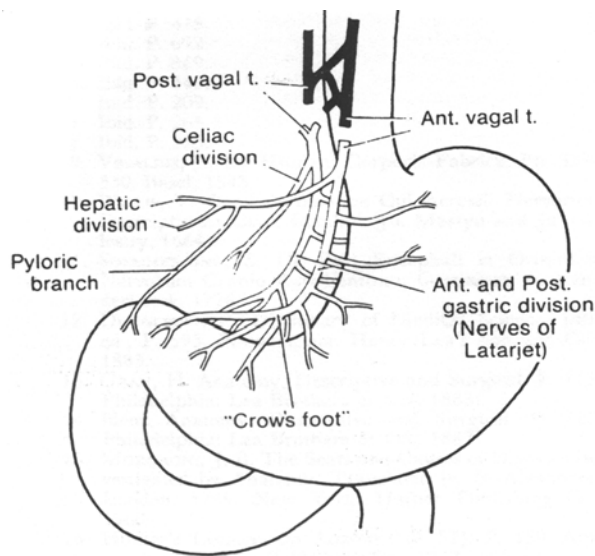
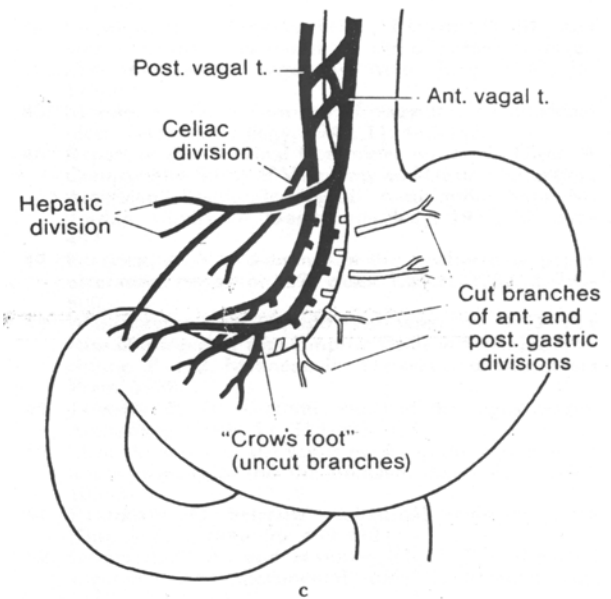
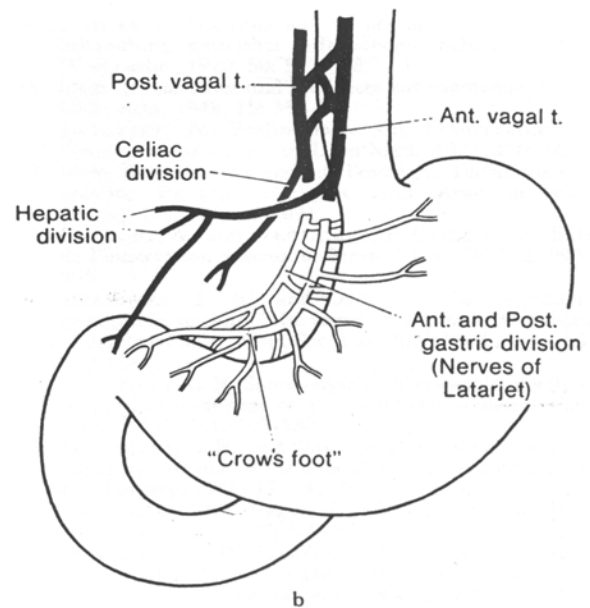


FIG. 9. a, Truncal vagotomy. The nerves preserved are in black. b, Selective vagotomy. c, Parietal cell or proximal gastric vagotomy.



## VAGOTOMY

*Truncal vagotomy* (Fig. 9a) is the total vagal denervation of all structures below the diaphragm. *Selective gastric vagotomy* (Fig. 9b) is the section of all gastric branches of the anterior and posterior vagal trunks, sparing the hepatic and celiac divisions. *Proximal gastric (supra selective) vagotomy* (Fig. 9c) is the section of all branches of the anterior vagal trunks to the proximal two-thirds of the stomach, preserving branches to the distal one-third, the pylorus and the duodenum as well as hepatic and celiac divisions.

In about 40 per cent of the specimens described one study (67), section of the anterior

gastric division below the origin of the hepatic division (selective vagotomy) would have spared one or more gastric branches that originated above the level of the section (60) (Fig. 7 c, d

and e). Cutting the nerve above these branches would have constituted truncal vagotomy. A similar section of the posterior gastric division below the origin of the celiac division would have spared some gastric branches in about 80 per cent of the instances (Fig. 8 b, c and d).

Latarjet described the nerves which bear his name as the principal anterior and posterior nerves. In many specimens, there are several other nerves present (Fig. 8d). In such instances, a section of the principal nerve alone might probably denervate the antrum and pylorus, while leaving intact the nerve supply to the body of the stomach. This is the very reverse of the result intended by the surgeon!

The concept of cranial and caudal borderline nerves which should be spared at either end of a supraselective vagotomy has been proposed (10). The cranial limit is marked by a branch to the part of the esophagus in the abdomen. This branch is not concerned with gastric secretion and should be spared (70). At the caudal end, nerves extending to the antrum and pylorus should be spared. They may or may not be the terminal branches of the nerve of Latarjet. Preservation of these nerves will avoid the need for drainage.

The “vagaries of the vagus nerve” are such that the surgeon performing a vagotomy must always examine the distal distribution of the nerves to be cut. Denervation of the body of the stomach with preservation of the nerves to the antrum and pylorus is the goal. It may not be achieved in the same way in every patient.