

When the polio virus attacked the bulbar area of the upper spinal cord, it also affected the brain stem, including the vagus nerve, according to Dr. Steven Martin, is a gastroenterologist and a member of the faculty of the University of Cincinnati Medical Center.

The Vagus nerve controls the voluntary (striated) muscles of the larynx and pharynx, as well as the involuntary (non-striated) muscles of the esophagus, stomach, and trachea. This, a common involvement in Bulbar polio, occurred in 20% of acute polio cases. The term Bulbar polio is descriptive of the area of the spinal cord that was affected.

Since the polio virus directly affected nerves to striated muscles, the upper one third of the esophagus may be weakened. Diaphragm weakness may also occur in polio survivors even in the absence of any bulbar involvement.

Some patients may have problems with complete stomach emptying. . . . Since polio survivors may have vagus nerve involvement, this condition may be more prevalent.

Vagus nerve branches:

The **Gastric Branches** (*rami gastrici*) are distributed to the stomach. The right vagus forms the **posterior gastric plexus** on the postero-inferior surface of the stomach and the left the **anterior gastric plexus** on the antero-superior surface.

The **Celiac Branches** (*rami cæliaci*) are mainly derived from the right vagus: they join the celiac plexus and through it supply branches to the pancreas, spleen, kidneys, suprarenal bodies, and intestine.

The **Hepatic Branches** (*rami hepatici*) arise from the left vagus: they join the hepatic plexus and through it are conveyed to the liver.