The small ruminant stomach receives sympathetic and parasympathetic fibres.

 **Parasympathetic innervation**

Vagal nerves are arranged as a truncus vagalis dorsalis and ventralis (both containing afferent and efferent fibres) passing into the abdomen through the esophageal hiatus. In monogastric animals both vagal trunks run, from the cardia to the pars pylorica, along the lesser curvature of the stomach. The truncus vagalis dorsalis gives off branches to the visceral surface of the stomach, the truncus vagalis ventralis to the parietal surface. Since these areas of the simple stomach, from which the different compartments of the forestomach develop, are normally supplied by the dorsal trunk, this nerve bundle innervates a relatively large portion of the ruminant stomach.

The truncus vagalis dorsalis, after receiving the communicating branch from the ventral trunk, gives off branches to the celiac plexus (via the dorsal mesentery), branches that accompany the right and left rumina! arteries and veins, and several branches to the visceral surface of the reticulum. The continuation of the trunk joins the left gastric artery and runs over the dorsal curvature of the omasum and the visceral side of the lesser curvature of the abomasum to the pars pylorica. It gives branches to both sides of the omasum and to the visceral side of the abomasum The truncus vagalis ventralis is continued ventrally and to the right. The branches to the diaphragmatic surface of the reticulum are numerous. They also supply the region near the cardia. A long pyloric branch splits off and runs ventrally to the pylorus. The trunk continues close to the parietal surface of the base of the omasum and along the lesser curvature of the abomasum, giving branches to the parietal surface of both segments. A small branch reaches the pylorus and joins the long pyloric branch. The efferent vagal fibres synapse with perikarya in Auerbach's plexus and in the abomasum also with nerve cell bodies in the submucosal plexus.

**Sympathetic innervation**

The sympathetic innervation, which is particularly important in regulating the luminal diameters of arterioles (and to a lesser extent the veins) of the gastrointestinal tract, is chiefly from the greater splanchnic nerves (preganglionic fibres from the fifth and sixth as well as from a variable number of the more caudal segments of the thoracic sympathetic trunk). The greater splanchnic nerve passes caudally in the abdomen and synapses mainly in the celiac and cranial mesenteric ganglia. After synapsing, the resultant postganglionic fibres pass with branches of the celiac trunk and cranial mesenteric artery to all parts of the viscera.

NOTE BEFORE:

PHOTOS should be in the lecture from Anatomy with Dr Reda titled “polygastric stomach”. I didn’t save a copy of that lecture, sorry. I just have my personal notes, no photos.