

pyloric ring was from four to five times the normal, varying from 1.5 to 1.75 cm. including the mucous membrane. As shown in the photograph of the interior, the mucous membrane over the cardiac end of the stomach presented a normal appearance. The orifice of the diverticulum above noted was plainly seen and readily admitted the index finger. Numerous regular folds of mucous membrane traversed the contracted portion of the stomach, while at the entrance to the pylorus they became irregular and deeper. The pyloric orifice would not admit a glass rod 5 mm. in diameter. The termination of the pylorus in the duodenum, viewed from the duodenal side, resembled not a little the cervix uteri in the vagina. While the thickened wall rendered the passage very small, the folds of mucous membrane occluded it almost completely. Nowhere throughout the interior of the stomach was there any evidence of ulceration, cicatrization or irregular infiltration, the mucous membrane moved freely on the submucosa and muscular coats.

Microscopic examination was made by Dr. A. G. Nichols, to whom I am greatly indebted for such services. Sections were made through the pyloric ring at a point about 5 cm. above this, and also near the fundus of the organ. The section through the pylorus showed some hypertrophy of the glandular elements of the mucosa. The submucosa was loosely areolar in texture and possibly thicker than usual, bearing numerous blood vessels. The mucosa presented otherwise a normal appearance. There was no evidence whatever of aberrant glandular growth. The most striking feature was the great thickening of the inner muscular coat, which consisted of large bundles of muscle cells held together by stronger bands of fibrous tissue. Under the high power the nuclei seemed to be larger than normal, and there seemed to be both hypertrophy and hyperplasia. The outer muscular coat was thickened, but to a less extent than the inner, while the serosa was normal. The second section, taken above the pyloric ring, showed a moderate degree of thickening of the inner muscular coat. Otherwise it was normal. The third section showed no abnormal changes.

The etiology of such a change about the pylorus remains unsettled. Tigler, writing in 1893, strongly objected to the view that these cases were congenital, supporting his objection by stating that the cases presented by Maier, who was a strong advocate of this classification, were not to be reckoned in such a category, and that all the cases reported both by him and Andral as well as by Lebert belonged to the middle years of life. He further stated that according to his knowledge there was no record of any genuine case of stenosing pyloric hypertrophy in the literature. However, as an appendix to his article, Tigler reviews reports of two cases found in the English literature, and adds by way