The enteric nervous system comprises two major systems: the submucosal and the myenteric plexus. The aim of this study was to describe the myenteric plexus from three strains of spontaneous diabetic rats from the histological point of view. Samples of small intestine and of proximal and distal colon were obtained from three spontaneous diabetic rats i.e., eSS, eSMT, â strains and 1-year old Wistar rats. Specimens were stained with NADH (â-nicotinamide adenine dinucleotide, reduced form) histochemical technique and examined with light microscope. Microscopically little modifications in mesh-like structure of intestinal Auerbach's plexus from eSS were detected in comparison with Wistar rats samples. Intestinal plexus of eSMT and â rats showed disruption of mesh-like structures, modifications in the slightly colored background (smooth muscle) and augmented vascularization. Small intestine and colon are affected. In short: In our spontaneously diabetic rat models, mesh-like structure of Auerbach's plexus is strain dependent.

Keywords
Myenteric plexus, ageing, diabetes, rat intestine.