

STRUCTURE OF ACHE POSITIVE NERVE PLEXUS IN THE DOG CORNEA

Vidmantas Lasys, Edvinas Stanevičius, Gintaras Zamokas

Summary. From 12 to 15 thick AChE-positive nerve bundles, which were distributed evenly around limbus, innervated dog's cornea. Thick nerve bundles run along intermediate stromal layer from limbus to the centre. Some thick nerve bundles, having come to peripheral part of cornea branch into 2 nerve bundles of equal thickness and running to central part split into various nerve bundles. Other thick nerve bundles run almost straight to the centre and split into medium and thin nerve bundles.

Having branched from AChE-positive thick nerve bundles, medium and thin nerve bundles crossed and cover thick nerve bundles. They split and repeatedly join with each other and it makes possible to follow short distances of nerve bundles in AChE-positive nerve plexus. Medium and thin nerve bundles dominate in a superficial stromal layer of cornea both in pericentral and central parts of cornea. Part of medium nerve bundles split from thick nerve bundles branch well coming back to limbal part of cornea. Thin nerve bundles run to epithelium and abundantly are anastomosed one with another. Some thin nerve bundles end in conic enlargements.

Morphological studies did not show clear age- related differences of structure and histotopography of AChE-positive nerve plexus.

Keywords: dog, cornea, innervation, acetylcholinesterase (AChE).