NERVE FIBERS IMMUNOREACTIVE TO SENSORY NEURONAL FACTORS IN THE PORCINE ADRENAL GLANDS

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Abstract. The distribution pattern of nerves immunoreactive to neuronal factors typical for sensory neurons, such as substance P (SP), calcitonin gene – related peptide (CGRP), somatostatin (SOM), galanin (GAL) and nitric oxide synthase (NOS), used here as the marker of nitrergic neurons was studied by single immunofluorescence technique in various parts of the porcine adrenal gland i.e. subcapsular region, zona glomerulosa, zona fasciculata and zona reticularis of the cortex, as well as in the medulla of the gland. Evaluation of the density of nerves was performed by the semi quantitative method, where (-) means the absence of fibers (+) – single fibers, (++) – rare nervous processes, (+++) – depicts a dense and (++++) - very dense meshwork of fibers. All substances studied were observed in the porcine adrenal gland and the density of nerve fibers immunoreactive to particular factors depends on the adrenal gland region. The largest density of nerve fibers immunoreactive to neuronal factors studied was observed in subcapsular region and adrenal medulla. The study shows that nerves within the porcine adrenal gland exhibit significant differentiation in terms of expression of neuronal factors typical for sensory neurons.

Keywords: adrenal gland, immunohistochemistry, neuronal factors, sensory nerves, pig.