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INFORMATION

Hokkaido University granted the degree of Doctor of Veterinary Medicine to the following 37 graduates of the School of Veterinary Medicine on March 25, 1996. The authors's summaries of their theses are as follows:

A HISTOCHEMICAL STUDY ON THE DEVELOPMENT OF EPITHELIOID CELLS IN THE AORTIC WALL OF THE POSTNATAL CHICKEN

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Development of epithelioid cells in the aortic wall in chickens from post-hatching day 1 to the adult stage was studied histologically and histochemically.

The aortic epithelioid cells were located as a loosely gathered cellular focus in 1-day-old chickens. In adult chickens, in contrast, the cellular focus occupied the whole transverse area of the aorta, showing an age-related extension. The epithelioid cells in adult chickens formed a band about 1 mm in width, approximately 10mm proximal to ductus arteriosus. They contained serotonin and chromogranin A as predominant granular components, some of them also being immunoreactive for bombesin and PYY. Several epithelioid cells were stained positively, varing in intensity, for dopamine β-hydroxylase (DβH), neuron-specific enolase (NSE), S-100 protein, and protein gene product 9.5 (PGP 9.5).

The epithelioid cells were located deeply in the tunica media of the aorta in young chicks, and tended to move toward the subendothelial space with aging. This finding may suggest that the movement of epithelioid cells makes it easy to receive chemical signals from arterial blood.

The epithelioid cells located deeply in the tunica media were found to be chromogranin-negative and PGP 9.5-positive, while those in the subendothelial space were chromogranin-positive and PGP 9.5-negative. Since chromogranin and PGP 9.5 are regarded to be marker proteins of endocrine cells and neurons, respectively, these results suggest that the epithelioid cells shifted close to the endothelium are of an endocrine nature rather than a neuronal one.