CYTOGLOBIN AND NEUROGLOBIN ARE PRESENT IN THE HUMAN BULBUS AND CAROTID BODY

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The aim of the present study was to evaluate the Neuroglobin (Ngb) and Cytoglobin (Cygb) presence in the medullary bulbus solitary tract nucleus (STN) and carotid body of human subjects. Transverse serial sections of formalin-fixed, paraffin-embedded brainstems taken from six subjects were investigated. Ngb and Cygb were found expressed in both STN and carotid body. Differences in expression of Ngb and Cygb among dorsal and ventral area of the nucleus may be related to their different functions and metabolic demands and physiological function. Because STN plays an important role in the processing of cardiovascular and respiratory reflex input, the integrative action between the chemosensory discharge to the bulbar respiratory center occurs through Ngb and Cygb modulation.