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Abstract

The cytoarchitectural organization of the spinal gray matter in 6 rabbits about 1000 gm in average weight has been investigated. All the spinal segments were sectioned serially at a cross plane and stained with cresyl violet. Based on the microscopies of the rabbit segmental serials, and according to the size, Shape, density and the arranging pattern of its nerve cells, We have found that the spinal gray matter in the rabbit can be divided into 9 cell-layers by means of Rexed's method reported in 1952, and these layers were arranged and named from dorsal to ventral side as laminae I, II, ..... etc. The first five layers were included in the dorsal column, and each of them was somewhat narrower than any one elsewhere. The long axes of the cells in the superficial layers Were roughly corresponding to the dorsal surface of the dorsal column, but that of the deeper layers

were gradually appeared straight, and extending directly across near the base of the dorsal column. Lamina VI existed only in C1 to T3 and L3 to S4 segments, but bellow the level of S1 was gradually to reduce to nothing, meanwhile, it migrated to the medial part of that side. As for laminae VII and VIII, their thicknesses were greatly increased and nearly occupied most of the ventral column. Lamina IX was usually grouped into 2 to 7 various sized columns of motor nuclei, and strewed in the lateral or ventral area of laminae VII and VIII. There is another cell area, named lamina X, setting around the central canal. On the whole, most of these cell layers begin at the cranial end of the cord and run through it toward the caudal end. But on their arrivals at the different levels of the cord, the ranges and relations of the distribution of these laminated cell layers, have made some special migrating changes which may be identified.

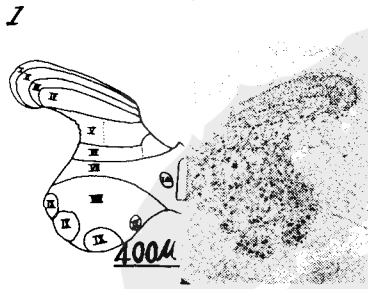


圖 1 第四頸髓節之橫斷面。右半圖為實際標本，左半圖為描繪。家兔。焦油紫染色。

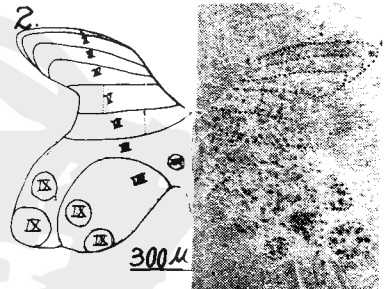


圖 2 第五頸髓節之橫斷面。焦油紫染色。

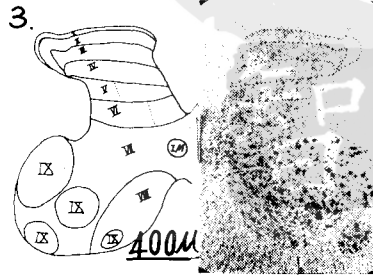


圖 3 第七頸髓節之橫斷面。焦油紫染色。

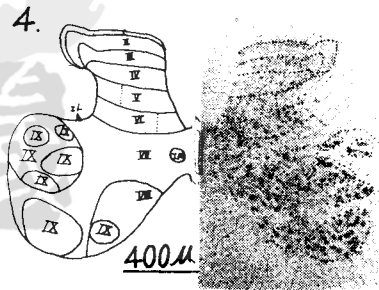


圖 4 第一胸髓節之橫斷面。焦油紫染色。

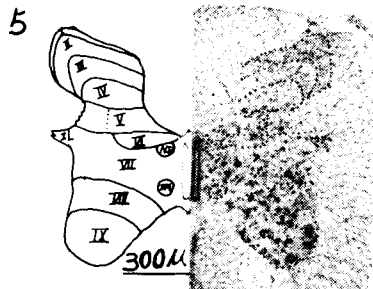


圖 5 第三胸髓節之橫斷面。焦油紫染色。

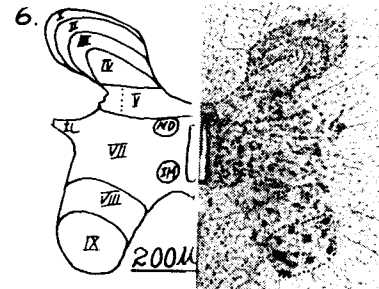


圖 6 第六胸髓節之橫斷面。焦油紫染色。