

Imagens em NEUROLOGIA

Spinal cord: initial historical images*Medula: imagens históricas iniciais*Eliasz Engelhardt¹ [<https://orcid.org/0000-0003-4168-1992>]

The spinal cord is mentioned in indirect manner since antiquity, as seen in the Edwin Smith papyrus, and Hippocratic writings, while the first direct mention may be credited to Aristoteles, and the first description to Galenus.¹ However, the first macroscopic description and depiction of the spinal cord (*dorsalis medulla*), and the related segmentary 'nerves' (roots), was presented by Andreas Vesalius (1514–1564), Flemish physician and anatomist, in Book IV of his 'On the Fabric of the Human Body' (*De Humani Corporis Fabrica*) (1543) (macroscopic image p 526, text pp 533-554).² The first meaningful study on the spinal cord is usually credited to Gerardus Leonardus Blasius (1625 – 1692),

Dutch physician and anatomist, in his 'Anatomy of the Spinal Cord and its derived Nerves' (*Anatome Medullae Spinalis et Nervorum inde Provenientium*) (1666), where the spinal cord (*medulla spinalis*) is described and depicted, regarding its macroscopic appearance, including its main fissures, the differentiation between the external white (*substantia albicans*) and the internal grey matter (*substantia cinerica*), the latter arranged in a peculiar way (later known as H shaped), and also the spinal nerve roots (anterior and posterior), the vascularization, as well as the meningeal covering, and vertebral encasing.^{1,3,4} (Figure 1 and Figure 2)

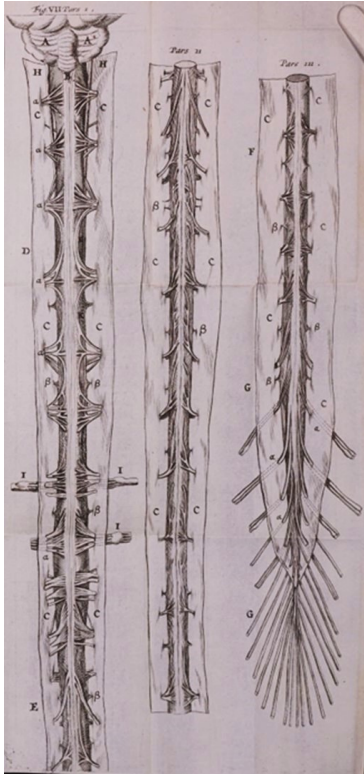


Figure 1. Spinal cord of dog with emerging roots, and dura mater, divided in three parts (part of plate - Figure VII).⁴

Part I=cervical, Part II=thoracic, Part 3=lumbar, sacral, and tail bones.

α=transit of root through the dura mater, β= union of the dura [dura mater] (C) with the thin meninx [pia mater] [denticulate ligament], l=extradural nodes developed from the convergence of several nerve fibers [spinal ganglia]

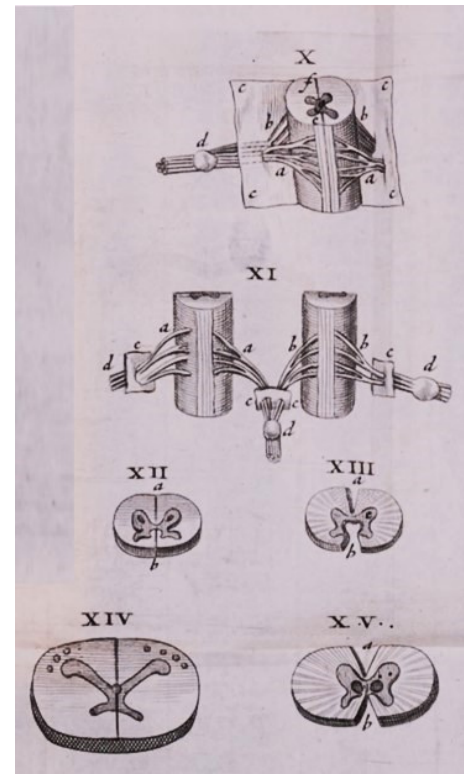


Figure 2. Spinal cord sections (part of plate – Figures X-XV).⁴

X. The emergence of nerves [roots] from the spinal cord, their origin from the anterior and posterior aspects, their passage through the dura mater, and their extradural junction.

a=nerves [roots] proceeding from the posterior aspect of the spinal cord, b=nerves [roots] from the anterior aspect, c=dura mater, d=extradural union of the roots [and spinal ganglion], g=internal reddish matter [grey matter].

XI. Hemisected spinal cord in order to display with more precision the a-b-c-d of the former figure.

XII.XIV. Transversal sections of the spinal cord. a=anterior fissure, b=posterior fissure.

XIII.XV. Transversal sections of the spinal cord. a=anterior fissure, b=posterior fissure, c=middle spinal matter [grey matter, spinal H]

XII-XV. Transversal sections of the spinal cord displaying the middle grey matter [spinal H shape], and the peripheral white matter

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¹Instituto de Neurologia Deolindo Couto and Instituto de Psiquiatria, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil

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Corresponding author address: eliasz@centroin.net.br