1. SPINAL CORD: TRACT PATHOLOGIES

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Movement is crucial to human beings and animals in general and damage to motor systems lead to disabilities. Sensory systems are equally important which provide information to the brain about sensations. This chapter gives an overview of these motor and sensory pathways[1].

The spinal cord can be divided into a part that contains white mater and a part that contains gray mater[2]. The spinal cord lies within the vertebral canal and is surrounded by three protective layers known as the meninges. It is cushioned against trauma by the CerebroSpinal Fluid (CSF).

A point to note here is if the spinal cord is floating in the CSF, why doesn't it move around in the vertebral column. The answer are the denticulate ligaments (which are extensions of pia mater; the innermost layer of the meninges) and the filum terminale which is the inferior extension of the pia mater[3].

[1] Knowledge of general spinal cord anatomy is a prior requirement to study this chapter.

[2] Gray mater contains the cell bodies of the neurons while white mater is the collection of myelinated axons. Also, note that the arrangement of gray and white mater is different in the brain and the spinal cord. The details will be discussed in the chapter on Brain Pathologies.

[3] The lower portion of the filum terminale is also covered by dura mater as well.

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References