

## An Investigation into the CSF Absorption in Cats

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### Abstract

#### Objective

Cerebrospinal fluid (CSF), its secretion, circulation and absorption have been the subject of recent researches. There is a general agreement that the main site of CSF secretion is in the choroids plexus. However, the main absorption site is controversial. Some believe that arachnoid granulations are the principle sites of CSF absorption. In this study, different locations of CSF absorption in cats are investigated.

#### Materials and Methods

2 ml (100 mg), of ferrous dextran was injected into the subarachnoid compartment of seven cats. After 15 days the animals were euthanized, and the central nervous system (CNS) and its relative tissues were analyzed for any iron amlumulation. Several tissue samples were taken and stained with Prussian blue and Hematoxylin-eosin.

#### Results

The light microscopic study of different tissues showed amlumulation of the tracer in olfactory and optic nerves, dorsal root ganglia as well as spinal nerve roots.

#### Conclusion

The main locations of CSF absorption were the spinal nerve roots and their surrounding lymphatic tissue. There is reason to believe that some endothelial fenestrate within these roots were involved in this process.

**Keywords:** Absorption, Cat, Cerebrospinal fluid

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