

Magendie, or by way of the functioning membrane described by L. Weed. Besides this pathway, according to the studies of Monakow, a drug introduced into the cerebral cavities may pass through the cerebral parenchyma, directly reaching the nervous elements by way of the perivascular and perineuronal spaces. The ventricular fluid reaches the central spinal canal when free of obstructions by direct communication. A drug introduced into the spinal subarachnoid spaces may reach the cerebral parenchyma. In these cases the displacement of the fluid is due to the ascending current mentioned in the experiments of Quincke, Ahrens, Dandy and Blackfan, Solomon, Thompson and Pfeiffer, Marinesco and Draganesco.

A drug introduced into the subarachnoid spaces may reach the central nervous parenchyma, passing from the exterior toward the interior, as shown by Marinesco, Draganesco, Lafora, Prados Such, Dixon and Halliburton, Syursberg, Fleischmann and Weed. Such a penetration is greater if the medicament is introduced under a high pressure or after the use of intravenous injections of hypertonic salt solutions. Furthermore, Kramer claims the existence of an ascending current in the central spinal canal, so that the fluid reaching this canal from the subarachnoid spaces may transport upward any drug present in the fluid.

The fluid may reach the arterial circulation indirectly by way of the perineural lymphatics, or by venous absorption as emphasized by Weed.

From the theoretical point of view, intraventricular and intraspinal therapy is justified by the experiments of many authors who have established the possibilities of a dye reaching the nervous parenchyma. From a practical point of view intraspinal therapy allows a medicament to reach the nervous tissue directly and immediately.

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*General Paralysis: The Histopathology of the Basal Ganglia, Corpus Callosum and Dentate Nucleus in Four Cases.* (*Arch. of Neur. and Psychiat.*, February, 1927.) Houlton, T. L.

In four cases the author examined the basal ganglia and dentate nucleus and found very constant pathological changes, consisting of perivascular infiltration with small-cells, plasma-cells and large lymphocytes. Satellitosis was often present with neuronophagia. Rod-cells were common. Many nerve-cells contained no nucleus and the cytoplasm stained faintly. The author thinks that the speech disturbance, the expressionless facies and the fine tremors about the eyes and mouth may be due to the changes in the basal ganglia.

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*Malignant Hypernephroma Coincident with Arterio-sclerosis in Children.* (*Journ. of Nerv. and Ment. Dis.*, January, 1927.) Dieterle, R. A.

A female child, æt. 4½, had convulsions alternating with a semi-stuporous condition. The blood-pressure was 145-160 mm. Hg.