

cants for permission to work underground was 18.8. The most important grounds for rejection are a high-tension pulse, booming heart sounds or reduplication of the second sound. This supervision is the first means of combating caisson disease. The second consists in reducing the CO₂ as far as possible. This was accomplished by the introduction of a blow-off tube in the shield and by injecting the air through screens of caustic soda. Macmorran believes the theory of hyperemia has been set aside by many on altogether insufficient grounds. He thinks that the true explanation of caisson disease lies in the combining of the two factors most frequently discussed in connection with it, namely, hyperemia of the deeper tissues and accumulated impurities in the blood, due to imperfect interchange of gases in the lungs. Nerve sedatives are to be preferred to opiates in the treatment of caisson disease, and in severe cases cannabis indica often gives excellent results. The nitrates and acetates of potassium are useful in the termination of the trouble, but by far the most important part of the treatment is the medical lock into which air passed over caustic soda is pumped till the pain subsides. Caisson disease will become a thing of the past if only suitable men are employed and if the suggested treatment is given to the injected air.

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LESIONS OF THE CONUS MEDULLARIS AND CAUDA EQUINA. Bertram W. Suppy, M.D. (Journal of the American Medical Association, May 10, 1902).

The conus medullaris occupies a position in the spinal canal directly behind the first lumbar vertebra, completely hidden from view by a mass of firm and coarse fibers, constituting the beginning of the cauda equina. Recent writers limit to that portion of the cord represented by the third, fourth and fifth sacral and coccygeal segments. The clinical picture produced by lesions of the conus medullaris is characterized by impairment of sensation over an area which involves the integument of the penis, scrotum, perineum, anus, inner aspect of the buttocks and posterior surface of the thighs. The sensibility of the mucous membrane of the penis and rectum may also be dulled. If the lesion is sufficiently destructive, loss of muscular power of the bladder and rectum may be seriously impaired, sexual power lost and bed sores may develop. When disease of the cauda equina is accompanied by typical symptoms it is easily recognized. Except when due to trauma, disease of the cauda usually develops slowly, producing symptoms more or less characteristic of root disease. The patient first experiences pain upon movement of the lower extremities; later the pain becomes spontaneous and persistent, with exacerbations. Subsequently anesthesia begins, and when the lesion is a uniform compression of the cauda, the function of the central fibers may be first disturbed. Bladder and rectum symptoms may appear early. Muscular weakness is present in proportion to the pressure on the motor fibers. There may be exaggerated reflexes at the beginning; later they are diminished and finally lost. Atrophies develop, electrical reactions may be altered. That which specially distinguishes diseases of the cauda equina is pain. A conus lesion may be associated with pain, if the cauda or meninges are involved; otherwise there is absence of pain. Differential diagnosis is important as disease of the cauda equina may often be amenable to surgical treatment.

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EPILEPSY, ITS ETIOLOGY, PATHOLOGY AND TREATMENT BRIEFLY CONSIDERED. William P. Spratling, M.D. (Journal of American Medical Association, May 3, 1902).