

progressively increasing resistance to further extension is offered by the marked tonic contraction of the muscles at the back of the thigh. If the attempt to extend be persisted in, pain in the lumbar region is produced, and instead of a further extension of the leg being effected, the pelvis will be raised.

The sign may be elicited in two ways, either by having the patient sitting straight up on the edge of the bed, in which case, extension of the leg to a certain point immediately produces the phenomenon, or, with the patient lying flat on his back, the thigh is first brought to a right angle with the body, and the leg then extended until flexor spasm is observed.

It is remarkable that such an easily recognized sign should have attracted but little notice, and that not very favorable, for 14 years.

A revival of interest in this test was inaugurated by the publication of Netter's statistics in 1898 and 1899, and those of Herrick, of Chicago, in 1899. From these it appears that Kernig's sign was found in ninety per cent. of all cases of meningitis.

In 100 cases of disease other than meningitis Herrick found this sign in only two; in one of these there was a cerebral lesion (subdural hæmorrhage), in the other a local cause of contracture in the lower extremity.

Before applying this test it is necessary to exclude any local cause for flexor contracture, such as arthritis of the knee or hip joints, organic disease of the spinal cord, and sciatica.

Though no entirely satisfactory explanation of this phenomenon has as yet been advanced, it is highly probable that it is partly due to an exaggerated tonus in the muscles at the back of the thigh.

The lumbar puncture of Quinke, is a less simple means of detecting meningeal mischief, but affords at the same time more definite information.

Proposed by Quinke in 1891, this method of diagnosis, was not utilized to any extent, in America at least, until five or six years ago, and even now has not obtained the general recognition that its value entitles it too. In a text-book of Medicine published this year in England, I find no mention of lumbar puncture as a means of diagnosis in meningitis. The technique is not difficult. The patient lies in bed on the right or left side, according to the choice of the operator, with the back well bowed, the knees drawn up toward the abdomen and the head and neck well bent forward. To ensure stability in this position it is well to have a firm pillow, or sand-bag, under the flank and abdomen, and an assistant holding the patient's legs and shoulders, to prevent movement of the spine during the puncture. The lumbar