o-12. Experimental Study on the Hemodynamic of Spinal Cord

Part 5: A Fiber-optic Endoscope for Spinal Cord (Spinaloscope)

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Many investigations have been made on the brain, while little has reported on the same subjects of the spinal cord. Less analytical attention has been paid to the spinal cord, partly because there are many difficulties of the direct visualization of the spinal cord from the clinical stand-point and there is less opportunity of autopsy-study on the spinal cord.

Although fiber optic endoscopes are already applied to stomach, esophagus, branchus and so on, nobody has developed the fiber optic endoscope on the spinal cord. We constructed so much excellent fiber-optic endoscope on the spinal cord, as Spinaloscope (KTM-10).

This spinaloscope was made from a grassfiber optic image guide and a same light guide, both of which have been coated with non-metal coating. The image guide and light guide were both 20 mm in diameter. This instrument has been used to observe the surface of the spinal cord, to identify pathological changes of the spinal cord surface of blood vessels on the spinal cord.

As the results of animal studies, the spinaloscope is proposed as a useful method in the spinal cord surgery and also at clinical and experimental examination.

o-13. "A Classification of Scoliosis on a Neurological and Equilibrium-functional Basis"

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The neurological and equilibril function of patients suffering from scoliosis were examined in our Clinic. According to the results obtained, the patients could be classified into 3 types.

1) Cerebral Type. Of the 111 cases, 5 cases belonged to this type. All of them had a lower grade of Intelligence Quotient (51 on the average), 3 cases of which showed a abnormal electroencephalogram. The patient showed a marked