medullar defecation reflex as well as the sacral autonomic contraction of the rectum.

The authors are thus confident that there are close interrelations between the higher hypothalamic, tectal, medullar and lower sacral controls at the rectal defecation mechanism.

91. Clinical Electromyographical Studies on the Stretch Reflex and the Gamma Activity

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(1) Electromyographical response of the anterolateral muscles of the leg was recorded following the stimulation on the tibial nerve at popliteal fossal in normal infants aged zero to two which showed physiological Babinski sign. Low threshold reflex response (H-reflex) was observed in the electrograms but this reflex response was not seen in the group of older aged infants which had no clinical Babinski sign. These results indicate that the H-reflex response in the anterolateral muscles is an electromyographical manifestation of the Babinski sign.

(2) It has been our opinion that tremor and rigidity depend on each mechanism although both of them are seen in the same disease, Parkinsonism. The following results may present some evidence to solve this problem. Recently, we noticed a phenomenon in patients of Parkinsonism that tremor was provoked by repeated electrical stimulation on the supplying nerve where none or little tremor was seen before stimulation. This induced tremor after stimulation on the nerve could not be abolished by gamma fiber block with procaine injected into the nerve. On the other hand, during sleep or under general anesthesia no induced tremor was detected after stimulation of the nerve.

92. The Role of Superior Colliculus, on the Mechanism of the Optokinetic Nystagmus and Stereotaxic Operation of Congenital Nystagmus

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Dealing with the mechanism of optokinetic nystagmus, we obtained the following results, using rabbit.