

ORIGINAL CONTRIBUTIONS

THE CLINICAL SIGNIFICANCE OF THE AUTONOMIC NERVES SUPPLYING THE VISCERA AND THEIR RELATIONS TO THE GLANDS OF INTERNAL SECRETION.*

(ABSTRACT).

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PROF. BARKER gave a very lucid exposition of the structure of the cerebrospinal and visceral nervous system, and their influence over the various organs of the body. He then passed on to the more practical part of his address. His remarks on the influence of drugs, etc., are given in the following paragraphs.

THE EFFECTS OF ELECTRICAL STIMULATION OF THE OPPOSING AUTONOMIC SYSTEMS.

In the region of the eye, electrical stimulation of the sympathetic causes dilation of the pupil (M. dilatator iridis) and contraction of the orbital muscle, while electrical stimulation of the mid-brain autonomic (N. III) contracts the pupil (M. sphincter iridis) and causes accommodation spasm (M. ciliaris).

In the salivary glands, stimulation of the sympathetic arrests salivary secretion, while stimulation of the hind-brain autonomic (chorda tympani) causes profuse salivation.

In the cardiac area, electrical stimulation of the sympathetic (N. accelerator) causes tachycardia, while electrical stimulation of the hind brain autonomic (N. vagus) causes bradycardia.

In the digestive system electrical stimulation (N. vagus) causes increased secretion and hypermotility, while excitation of the sympathetic diminishes secretion and leads to relaxation of the smooth muscle.

In the pelvic domain electrical stimulation of the N. pelvicius causes contraction of the detrusor of the bladder, while electrical stimulation of the sympathetic relaxes this.

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