

nervous system. Should this be true, then we might also expect that the administration of sex gland to such patients would cause an aggravation of the patient's condition, while partial or entire castration, possibly combined with the transplantation of normal organs, might similarly be expected to have a beneficial influence. Evidently, the problem is now open to investigation from many sides, and it does not seem unreasonable to expect that definite advances will be achieved in the near future."

ADRENALIN CHLORIDE IN EXOPHTHALMIC GOITRE.

I. L. van Zandt records a case of exophthalmic goitre which he treated by adrenalin chloride solution (*Ameri. Med.*, April, 1914). Bearing in mind the alleged antagonism between the thyroid and the adrenals, he thought that the excessive action of the thyroid in the disease might be controlled and possibly cured by adrenalin. The patient, a woman of about 30, had one child aged 10. There was no history of miscarriages. She had generally good health until four and a half years ago, when she developed exophthalmic goitre. She has had but little treatment, and has steadily refused surgical measures. The author was summoned hastily to see her, and found her almost dead from "heart failure"; her pulse was very feeble and intermittent—60 to the minute. After strychnine hypodermically, followed by strychnine and a preparation of *cactus grandiflora*, she rallied by the next day; the depression seems to have followed a severe attack of vomiting. At this time she had extreme exophthalmos, tachycardia, and a large goitre visivly pulsating, extreme nervousness, and a sense of something terrible impending; she had a constant headache with occasional very severe paroxysms. About eight days later six drops of adrenalin chloride solution was given four times a day; this was dropped into a spoon and a few drops of water added, but not enough to cause swallowing, and this was kept in the mouth to be absorbed therefrom. The author says this method is next to a hypodermic injection in rapidity and certainty of action. Within half an hour the visible pulsation had ceased and the flushing of the face was lessened. A month later all her signs and symptoms had greatly diminished, her nervousness was all gone, and she said she had never felt better. Her continuous headache had left her after the first dose, and had not returned. Van Zandt admits that she is not yet cured, but he claims that if this action of adrenalin is at all uniform in exophthalmic goitre it will furnish an excellent preparatory treatment for surgical intervention.—*British Medical Journal*.