CURRENT LITERATURE

I. VEGETATIVE NEUROLOGY: THE NEUROLOGY OF METABOLIC PROCESSES.

1. VEGETATIVE NERVOUS SYSTEM.

Sicard and Paraf. OCULOCARDIAC REFLEX AFTER NEUROTOMY. [Bull. d. l. Soc. Méd. d. Hôp., Dec. 10, 1920, XLIV, No. 38.]

These authors report on the findings in three patients who had had the trigeminal nerve severed to treat an obstinate tic douloureux. The oculocardiac reflex was abolished on the operated side while it persisted on the intact side. They accept this as demonstrating that the trigeminal pathways are involved in the reflex.

Shea, J. J. PROTEIN SENSITIZATION IN VASOMOTOR RHINITIS. [Tenn. State Med. Assoc., Oct., 1921.]

The term anaphylaxis was coined to contrast it with prophylaxis. The *modus operandi* involves speculation. Briefly, it is produced by a combined action of the sympathetic nervous system and the endocrinal secretions, "from a state of hypersensitiveness that is due to the presence in certain tissues of specific antibodies, the symptoms of anaphylaxis being caused by the meeting of these antibodies with the respective antigens in these tissues." (Tice, Medicine.)

That the sympathetic system controls secretions and vasomotor action is firmly established, but the stimulation of its action is unknown. Experiments have shown that endocrinal secretions will alter this sympathetic action. An animal may be immunized by inoculation with graduated doses of bacteria or virus to a state of prophylaxis against an infection of that germ. The same animal upon inoculation of graduated doses of a foreign protein may become sensitized to that protein, and further injections of that protein will produce anaphylaxis, or allergy. Inspection of the nasal membrane in vasomotor rhinitis excludes the presence of any inflammatory condition. On the other hand, the pale, cyanotic oedema bespeaks a lack of the fighting reaction. If the membrane lining the lower respiratory tract could be studied during an asthmatic attack, it would appear the same. The phenomenon is not limited to these membranes, but may be observed wherever sympathetic nerve control can be studied. The pupil may be dilated by the direct action of horse serum on the eye of a sensitized rabbit. Dilation of the intra-ocular vessels with hemorrhages and oedema of the conjunctiva

and lids accompany the more vigorous reactions. How does the protein enter the individual, and why this atypical reaction? The only answer to this is that at some previous date during the assimilation of the end products of digestion, they have retained their own characteristics and act as foreign protein. Maybe they were absorbed before the end stage of digestion had occurred. The system then produced antibodies for these native proteins, and upon each subsequent injection a fight is staged with an alteration of the endocrinal secretions which in turn disturb the action of the sympathetic system. Thus, anaphylaxis, or allergy is produced, and if the nasal membranes are mostly affected, we have a vasomotor rhinitis established, or if the respiratory membranes sustain the attack an asthma is present.

The sympathetic control of the nasal membrane occurs through the naso-palatine ganglion (Meckle's) and cocainization of this ganglion will reduce oedema of this tissue, proving the influence of the sympathetic over this phenomenon. The isolation of the offending protein is to be sought and the subsequent desensitizing of the individual. If the protein cannot be isolated, two methods of attack may be chosen. First, stimulation of the endocrinal secretions by the administration of either thyroid glands or mixed glands tablets; or, based upon the idea that after all this could not occur in a healthy nose, the administration of an autogenous vaccine made from the nasal flora. Under the endocrinal treatment I wish to recommend its application in the mild cases causing a blockage of the Eustachian tubes. [Author's abstract.]

Tenji Mashima. STUDIES ON THE VASOMOTOR NERVES OF THE LUNG OF TOADS. [Japan Medical World, Vol. I, No. 5, P. I., 1921.]

For artificial irrigation of the lung with Ringer's solution a cannula was inserted into the bulbus arteriosus from the internal surface of the ventricle. All the great arteries with the exception of the pulmocutaneous artery are ligated and the great cutaneous artery is ligated and then only the pulmonary artery remains as the way of circulation. Two pulmonary veins unite with each other and open into the left auricle. The other veins except the pulmonary were ligated at the opening and the cardiac branches of the vagus nerves were also cut near the sinus venosus. Another cannula was inserted into the left auricle. When the animal was thus prepared the perfused fluid flowed from the bulbus arteriosus through the great arterial trunk, pulmocutaneous artery, pulmonary artery, lung, and pulmonary vein, the left auricle and lastly through the cannula flowed away. The rate of the flow in this circulatory system is measured by recording the number of drops of the fluid flowing out through the auricular cannula. The arterial cannula is combined by the rubber tube with a Mariott bottle containing Ringer's solution.

On the specimen thus prepared were experimented the stimulation of