

doubtful value. The reverse condition of high blood pressure, as in chronic renal disease and general hardening of the arteries, has been thought by some to be caused wholly or in part by an extra supply of adrenalin in the blood. This theory is now almost universally abandoned.

There is a form of tumor of the cortex of slow growth and low malignancy that exerts a remarkable influence on the individual. Should a tumor appear in the cortex of one gland in a young lad, he rapidly develops sexually and assumes all the characteristics of a man, though still a mere boy in age and stature. The occurrence of such a growth in a young female has the effect of suppressing menstruation, causing a growth of beard and bringing about other male features.

Adrenalin has a few well recognized uses in therapeutics. It is used locally as a means of arresting hæmorrhage; but it must be borne in mind that it only acts where there are sympathetic vasomotor nerves, and consequently is of no use in bleeding from the lungs, the brain, or spinal cord. It would really be injurious in pulmonary hæmorrhage by raising general blood pressure. It is sometimes used along with novocaine in producing local anæsthesia. This should be done in the spinal cord, as it does not contract vessels there and, further, is poisonous to the nerve cells of the cord. It should not be applied to the mucous membrane of the urethra, as it causes a protracted spasm of the muscular tissue. Adrenalin should not be employed locally nor hypodermically in the case of patients under the influence of chloroform, as its action in these is very dangerous on the heart. In shock 15 to 20 minims of 1:1,000 solution in one pint of normal saline given intravenously is of distinct value. Hypodermic doses of 1 to 6 minims of 1:1,000 solution have been found very useful in acute attacks of asthma. The muscles of the bronchioles are relaxed by the sympathetic nerves which are stimulated by the adrenalin.

III. THE PITUITARY GLAND.

The oldest view of the function of this gland was that it secreted the mucus found in the nose, the pituita. In 1672 Bower contended that this was erroneous, and that any secretion formed by it did not appear in the nasal cavities, but entered the blood. Majendie held that its secretion entered the blood. The discovery of the important functions of the supra-renal and thyroid glands gave a great impetus to the study of the pituitary body. That this substance was of much importance, and not a mere vestigial body, was shown in 1888, when Marie announced in investigations on the relationships between tumors of the