

gland and acromegaly. The next step came in 1895 with the discovery by Oliver and Schäfer that an extract from the pituitary had the power of raising blood pressure.

The body is composed of three parts: The anterior glandular, the intermediate, and the posterior or nerve portion. The anterior is an up growth from the buccal cavity, the posterior portion is a down growth from the thalamic part of the brain, and the intermediate part is a development from the anterior portion at an early period in foetal life. In structure there is an abundant network of epithelial cells among which the blood vessels circulate. The cells of this glandular part have well-defined staining properties, as chromophilic, either acid or basic; or those that resist chromaffine. The intermediate portion contains granular cells, some colloid substance, but not many vessels. The posterior part contains neuralgia, pigment cells, granules, and some hyaline matter.

Prof. Howell, of Johns Hopkins, found that the substance which raises the blood pressure and slows the heart is obtained from the posterior lobe. Vincent, Osborne and others found that there is usually a fall of blood pressure before the rise. It has also been observed by Schäfer that the cardiac slowing is not constant. It appears that this rise is due to the action of the pituitrin on the muscle fibres of the heart and arteries. When a second dose is given to a dog there is a fall; and this tendency becomes more marked with subsequent injections. It is thought by some that it is due to a depressor principle found in the gland.

Pituitary extract has the effect of lessening the fulness of respiration, which may even stop and begin again, a process which may be repeated several times. This stoppage appears to be due to vague stimulation.

By careful preparation a substance has been obtained that acts upon the uterus, and not on the blood vessels. The uterine contractions, following the administration of pituitrin, is likely due to this element. Pituitrin has been observed to increase activity of the muscular tissue of the urinary bladder, and increases the excitability of the nerve supply. Another very important action of pituitrin is its stimulating influence on the muscular substance of the distended intestine. There would appear to be two active principles: one which acts as a sympathetic inhibitory, and the other which is an augmentor. On the stomach as first the action that of inhibition,, which is followed by strong and prolonged increase. The injection of pituitrin temporarily increases the flow of milk. On the kidneys the effect is to dilate the vessels and increase the flow of urine. This action on the renal arteries differs from