

beneath the pericardium, and another beneath the endocardium, in the cavity of the left ventricle.

The blood was neither coagulated in the aorta nor in the right side of the heart. There was only a syrupy liquid, like lees of wine, in these organs, even in the right auricle, where there was not the slightest trace of fibrinous clot. The thoracic aorta was surrounded with a layer of blood, which occupied its entire sheath, and a portion of the posterior mediastinum. There was also ecchymosis in the external membrane of the aorta.

The great venous trunks were empty.

The liver was covered with a series of violet points, which formed at the level of the tenth rib a transverse band of a diffused bloody hue, and penetrating but slightly the substance of the organ. Nothing particular was observed on the concave surface. The yellow substance prevailed, and was only here and there tinged with red points. The kidneys contained effusions below the serous membrane in the pelvis and calices, and on section nothing but a bloody fluid escaped.

The spleen was small, and of ordinary density. The brain and cerebellum were only slightly congested. The bladder and uterus were normal.—*Edinburgh Journal*.

TANNIN AS ANTIDOTE TO STRYCHNINE.

BY PROF. KURZAK, OF VIENNA.

FROM want of a reliable antidote, the treatment in cases of poisoning by strychnine hitherto consisted principally in endeavouring to evacuate the poison, to combat the frightful spasmodic symptoms by narcotics, and to re-establish respiration, when it finally ceased, by artificial means. Donn  proposed iodine, chlorine, and bromine as antidotes to strychnine; Garrod, Rand, Morson, and Falck recommended prepared animal charcoal; but the efficacy of those substances has been neither tested sufficiently by experiment nor proved by experience. The same is true in regard to tannin, and the astringent vegetables containing it, their infusions, decoctions, &c. Although they recommended themselves by the fact that tannin forms chemical compounds, insoluble in water, with strychnine and other poisonous alkaloids, it seemed very probable that these products might be redissolved in the stomach and intestines, and thus be rendered capable of absorption, the virtue of tannin as an antidote to strychnine was, therefore, considered very doubtful.

With a view to subject this matter to a thorough examination, and to ascertain the efficacy of tannin in preventing and allaying the symptoms of poisoning by strychnine, Professor Kurzak made a series of experiments on rabbits and dogs. As the end of his interesting and highly important memoir, he states that the results of his investigation permit him to draw the following conclusions:—

1. *Tannin*, if administered in time, is an excellent *chemical antidote to strychnine*.
2. The doubt, whether the precipitate formed by tannin in a solution of strychnine, although insoluble in water, would not be redissolved by the gastric and intestinal juices, and the strychnine thus reobtain its poisonous properties, is solved by these experiments on rabbits and dogs in a complete and highly gratifying manner.
3. The successful results in dogs and rabbits justify the expectation that *tannin would suspend the poisonous action of strychnine also in man*, even in cases where the evacuation of the tannate of strychnine, formed in the stomach could not be accomplished.
4. These experiments show that *twenty to twenty-five times the quantity of tannin is required in order to suspend the poisonous action of strychnine*. In cases of poisoning it will be, however, advisable to administer a relatively larger proportion, as a part of the antidote will be absorbed by the usual contents of the stomach, particularly by gelatine.
5. As tannin as proved to be an antidote to nitrate of strychnine, which is much more soluble in water, there is so much greater reason to hope that it will be successful in poisoning by pure strychnia which dissolves in water with great difficulty.