converted into urea, carbonic acid, and water. But the microbic digestion does not stop at the breaking up of the albuminous molecule, it gives origin to two groups of substances, the one of the fatty series, as ammonia salts, butyric and caproic acids, and ptomaines; the other of the aromatic series as aromatic oxyacids, phenols, indols. These different bodies can no longer be used by the organism, they do not become oxidized in it, and they belong to the noxious products from which the system ought to rid itself. They are the products which if reabsorbed give rise to auto-intoxication. They would cause this in the normal state if the organism did not put in line the entire means of defence to change, to destroy, and to eliminate them. The intestinal epithelium, the liver, in the first place; the vascular glands, as the thyroid body, the thymus gland, the suprarenal capsules, in the second place; and, finally, the emunctories, and particularly the kidneys, eliminate those which have been neither transformed nor destroyed.

The conditions in which intestinal auto-intoxication is produced show themselves by two sets of facts. Either the poisons have been produced in normal quantity, but, in consequence of an insufficiency in the antitoxic organs or of the emunctories, they have not been rendered harmless; or, and this is the case much the most frequently, the poisons have been elaborated in too great quantity and the means of defense of the organism have not been sufficient for their destruction.

The pathological states which cause an augmentation in the production of intestinal poisons are very numerous. Among these may be mentioned dyspepsia in all its forms, stasis in the digestive tube, acute and chronic catarrh, and muco-membranous entero-colitis.

How can we recognize intestinal auto-intoxication? Without doubt, in the majority of instances, by special disorders, such as vomiting, colic diarrhoea; but it is necessary to remember that auto-intoxication may show itself by symptoms affecting distant organs such as the nervous system, nutrition in general, the skin. It is very important then when the intestinal symptoms are latent to search out carefully the true causes for the derangements in the other systems, so as not to overlook their intestinal origin.

According to Combe chemical analysis can establish the diagnosis of intestinal auto-intoxication by the quantity in the urine of the elements arising from the intestinal putrefaction, which are elimenated by that channel. The ideal plan would be to dose the veritable noxious substance, ptomaine or toxine; but no chemical procedure permits this. It is necessary, therefore, to fall back upon the bodies of the aromatic series, which are eliminated almost exclusively by the urine, and which, if