

up disease in the excretory organs, thus interfering with their functional activity, as in the injury to the liver in diphtheria or to the kidneys in diphtheria or scarlet fever, burns, etc.

The conditions enumerated are among the commoner ones in which auto-intoxication occurs. Other cases occur, sometimes with a fatal termination, in which the source of the toxemia is not readily apparent. Any one making a large number of autopsies not infrequently encounters a case in which the most careful examination of all the organs and tissues fails to discover any change in them sufficient to explain the fatal issue. I recently made an autopsy on the body of a man forty years of age, of splendid physique and good nutrition in whom all the organs appeared perfectly normal, except a slight interstitial nephritis and a catarrhal condition of the mucous membrane of the intestines. The only symptoms he showed *ante-mortem* were progressive weakness and lassitude and a persistent diarrhea. After the most careful examination into the case I could only account for death by attributing it to auto-intoxication of apparently intestinal origin.

The list of morbid conditions due to or associated with auto-intoxication is by no means complete, but I hope a sufficient number of examples has been cited to impress us with the practical significance of the subject and to furnish food for reflection.

From the ever-present dangers of self-poisoning to which we are exposed, we are protected principally by the sentinel action of the liver in intercepting or rendering innocuous poisons carried in from the alimentary tract by the portal blood, and by the activity of the organs whose special duty it is to eliminate from the system noxious substances that have gained entrance to it or are formed within it—the kidneys, liver, lungs, skin and the alimentary tract in particular. Fortunately under normal conditions these organs have ample power to remove many times the amount of poisons daily generated in the system.

Besides the more purely excrementitious materials, which should be immediately eliminated by the excretories, in many of the so-called secretions elaborated by various glands, and which subserve a useful ulterior purpose in the economy, substances are utilized which, if retained, would produce a deleterious effect on the organism; *e.g.*, the bile. In fact, it has been pointed out by Treviranus that "each single part of the body, in respect of its nutrition, stands to the whole in the relation of an excreted substance;" in other words, every organ and tissue, by taking from the blood the substances specially required for its own nutrition and functional activity, removes materials which are unnecessary for the other organs and which would consequently prove injurious if retained. We thus have a most complex mutual relationship among the different organs in respect to excretion.