

of the toxic condition. (b) In diabetes in which excessive transformation of glycogen into sugar occurs, with the appearance of the latter in the blood and urine. Here toxemia is always noticed, often ending in a fatal diabetic coma, associated with the presence of acetone or diacetic acid in the blood or urine. (c) In the conditions described under the vague term of lithemia. Here apparently the liver is unable to remove from the portal blood or to transform into innocuous materials, the excess of proteid substances or other poisonous materials carried to it, and these consequently escape into the general circulation. We thus get a whole series of conditions as insomnia; dizziness; sleepiness, especially after meals; lassitude; headaches; irritability of temper; hypochondriasis; or more definite diseases as gout, neuralgias, some cases of asthma, dyspepsia, skin lesions; and finally definite secondary changes in the vascular system and kidneys as in chronic interstitial nephritis and general arterial sclerosis. The pathology of these conditions is probably by no means so simple as here indicated, but without doubt auto-intoxication plays a most important part in their production.

Thirdly, auto-intoxication from gastro-intestinal disorders as in dilatation of the stomach; the various conditions associated with dyspepsia, constipation, obstipation or obstruction of the bowels; typhoid fever; summer diarrheas of children; cholera, etc. In all these conditions absorption of toxins from the alimentary tract plays an important, and in some of them, a principal part in the morbid condition. How frequently may we see, in dilatation of the stomach, symptoms disappear, as if by magic, after the viscus has been washed out, so that patients gladly submit to the discomfort of the stomach tube in view of the relief afforded. Even graver disorders are with good reason attributed to absorption of poisons from the intestinal tract as in pernicious anemia, in which there is certainly greatly increased hemolysis of the portal blood; in chlorosis, which is always associated with constipation, and in which we have the well-established clinical fact that free action of the bowels is a *sine qua non* to successful treatment. Even the most serious mental disorders may result in predisposed persons from intestinal auto-intoxication. Thus Berkeley mentions a case where a woman, aged forty, became insane, after an obstipation of six days' duration, in which all the symptoms promptly disappeared on free action of the bowels being secured. It is unnecessary to multiply examples of the symptoms, varying in degree from trifling discomfort to well-defined insanity, that may result from stercoremia.

Fourthly, in all infective disease, in burns and scalds, and many other conditions that might be enumerated, auto-intoxication is an important secondary factor in the morbid condition, for the specific toxins or the products of tissue waste in their elimination often set