

the nutrition of tissues or organs, either beneficially or injuriously. Therefore, none of them can touch diabetes itself any more than they can touch typhoid fever; however, some of them may relieve for a time, some serious symptoms in both diabetes and in typhoid fever. As a veteran teacher of materia medica, I used to urge that no functional or symptom medicine, such as the nervines, could be expected to modify an organic disease in any way, either for good or evil, the only exception being in the case of colchicum, which can produce organic changes. Alcohol produces organic changes only by virtue of its chemical and not by its nervine properties. One of the most powerful nervines for properties is nicotine. There is a great deal of functionally active nicotine in a cigar. Let any one who has never smoked a cigar try it, and he will soon illustrate what nicotine can do. Now, my father, my grandfather and my great-grandfather began to take nicotine by smoking tobacco about the same time of life that I did, namely, at twelve years of age, and continued the same to the last year of their lives, which was at the age of eighty-eight, eighty-seven and ninety-two, respectively, while I am well on to my three-score and ten. Can nicotine, therefore, not injure the bodily mechanism? Never, in rational doses, for like all other nervines, in such doses it can neither do permanent good nor permanent harm.

To this class of functional medicines belongs opium and its derivatives; and, therefore, diabetes continues progressive, however continuously or fully opium is prescribed. A functional medicine is one whose whole action can be secured by one dose. Its hundredth dose does not do any more than the first dose does, sometimes not as much, for with many of this class, as with tobacco, the system becomes used to them. A man may for many years relieve an asthmatic attack by stramonium, but it is not his disease—asthma—which is thereby dealt with, but its symptom; bronchial spasm, and his last dose of stramonium does not do more for him than the first dose did taken years before. More efficacious against his asthma itself would be arsenic and potassium iodide, which no more act in one dose than mercury does in syphilis, or iron in anemia.

Functional medicines we need constantly in practice