

percentage is appreciably higher in the cases giving a history of heavy work.

2. The percentage of palpable radial arteries is higher among those cases presenting a history of severe infectious diseases than among those in which this history is absent or among those in which a history of no causal factor could be obtained. The proportion is, however, far below that in the case of work or alcohol.

3. Rheumatism appears to be the acute infection after which the percentage of palpable vessels is highest, and next to rheumatism, typhoid fever.

As previously stated, it is well recognized that the results of such an investigation as this justify only rather rough generalizations.

Are we even warranted on a *post hoc propter hoc* principle, in assuming that work, alcohol and, in a subordinate way, the infectious diseases are the main or important causes of the changes which result in palpable radial arteries? Not necessarily. It is, however, not uninteresting that the results should, so far as they go, support the generally accepted views.

It seems to us there can be small doubt that the main etiologic factor in the development of the hyperplastic thickening of the intima, which constitutes so important an element of arteriosclerosis, is overstrain of the vascular walls, continued or intermittent high tension, whatever its ultimate cause may be. Heavy physical labor is assuredly one of the most important of these causes. It is not inconceivable that the rôle of the acute infections may be rather in the production of those focal degenerations with secondary regenerative changes which constitute the other important element in arteriosclerosis.

#### ARTERIOSCLEROSIS OF SYPHILITIC ORIGIN.\*

C. TRAVIS DRENNEN, M.D.

HOT SPRINGS, ARK.

Undoubtedly syphilis is quite capable of producing, and does produce, in certain instances, arteriosclerosis, but the existing relationship is somewhat obscure.

There is no disease in the whole category of diseases which brings to view so many and varied symptoms as syphilis, and it would be singular, indeed, if it did not enter as a causative factor in the production of arteriosclerosis when taking into consideration its known tendency to produce sclerosis in various organs.

That syphilitic arteritis and endarteritis do occur not infrequently, and that, too, early during the history of this disease, is recognized as a fact both by clinician and pathologist; furthermore, there is probably no disease which is so amenable to treatment, if such be instituted prior to pathologic changes which are not absolutely beyond repair. It will perhaps ever remain an open question as to just how syphilis attacks the vessels, but enough is known to lead us to presume that it comes about through the lymph spaces supplying the vessels.

I have often wondered if one day we would not come to recognize that vascular changes invariably occurred prior to organic changes in many of our so-called nervous diseases. Nerve-cells must be fed, and any alterations of the vessels themselves necessarily would secondarily bring about a starvation process, provided such alteration became permanent.

\*Read at the Fifty-fifth Annual Session of the American Medical Association, in the Section on Practice of Medicine, and approved for publication by the Executive Committee: Drs. J. M. Anders, Frank Jones and W. S. Thayer.

That arteriosclerosis is responsible for locomotor ataxia in certain instances and that syphilis enters largely as a factor in bringing about these results is a view regarding which I have rather firm convictions. I have long been persuaded that arteriosclerosis does not depend on any specific irritant for its production, but that in all cases a combination of elements enter as causative factors. Any agent or combination of agents that is continuously left to circulate within the vessels which are foreign to normal cell life will sooner or later be followed by the very changes now under consideration, no matter whether said agent or agents be alcohol, lead, syphilis, auto-intoxication, or otherwise. To me it is passing strange that a drug like mercury, which is more commonly used in the treatment of syphilis than any other, and has been for ages past, has not been considered one of the chief agents in the production of arteriosclerosis. When we come to consider the fact, it would be almost marvelous if at times we did not recognize the possibility, and even the very strong probability, of such being true, when we know so well the method commonly adopted by the profession at large to-day in the administration of mercury for the relief of syphilis.

What has been the custom and teaching of some of our very best writers regarding this subject for the past quarter of a century? Have we not been led to believe that the so-called tonic treatment of syphilis with mercury was the only royal road to success? Has it not been the practice of many physicians to prescribe mercury for a period of two years, practically without interruption?

I maintain that mercury is a metallic poison and altogether foreign to normal cell production, and when it is thrown into vessels, and there left to circulate for many months, and even years, whether done on the advice of a physician or through self-prescribing, we will find an agent that is just as capable of producing arteriosclerosis as syphilis or any other agent.

So many times has it happened that patients have come to my office who have been under continuous syphilitic treatment for many years, and, after having given a complete history of the affair, draw from their pockets a little bottle of mercury pills, or of some other pharmaceutical preparation, and relate with painstaking care just how much of this very much abused drug they have been taking during the past three or five years—daily, as the case may be—practically without interruption. It is common enough, I assure you, to warrant me in the belief that to-day more persons are treating themselves for syphilis than are under treatment by regular physicians. With this reckless, senseless and indiscriminate use of a drug like mercury, need we expect otherwise than to find arteriosclerosis resulting, particularly so when combined with one of man's oldest and most treacherous enemies, syphilis?

**A Law in Puerperal Pathology?**—The *Semana Medica* No. 10, 1903, quotes Corminas to the effect that in his large experience he has never known a fatal case of puerperal infection associated with acute mammitis. Recovery is the invariable rule when the puerperal infection is accompanied by an acute mammary lesion. He suggests that the presence of a lesion with attenuated infection may induce the formation of antibodies which exert a favorable influence on the virulent focus in the uterus. It is possible, he adds, that if fixation turpentine abscesses were made in the breasts instead of elsewhere, they might have a more powerful immunizing action, especially in case of infection involving the genital apparatus.