

thoric persons are well known. The tarry blood of the cholera patient will not flow at all through the small vessels. It has been proven by cryoscopy that the freezing point of blood varies a good deal, owing to the varying quantities of solid constituents therein. The normal freezing point is — 0.56, and this is lowered in cases of arteriosclerosis, and has been found to run about — 0.565 to — 0.66. If the blood is viscous the heart will have more to do and there will be potential high tension.

7. Sex plays an important part in the causation of arteriosclerosis, or rather in the form of it. Men suffer much more frequently than women. The mode of life, work, habits, etc., of men tend to produce the general form of the disease, whereas the more emotional nature of women is prone to give rise to the abdominal form of the trouble. When the life of a woman approaches in form that usual to men, she is liable to the general form of the disease. The sudden changes of blood pressure in women due to emotion affects the aorta and the arteries in the splanchnic area rather than those of the periphery.

8. We are all familiar with the effects of age. Gradually as the years go by the arteries lose their elasticity, and as they do so the heart has added work thrown upon it. It has been well shown, however, that this latter phase is lessened materially by the tendency of the inelastic vessels to dilate. The ages at which sclerosis comes on vary very much. It has been observed in a pronounced form in youth, and scarcely detectable at 80, due no doubt to the facts that the machinery was not overloaded on the one hand, and that it was kept clean of refuse and waste on the other.

9. Race and country conditions bear a close relationship to the causation of the disease. The negroes are prone to atheroma and sclerosis of the arteries. It is very common among whites in the United States. On the other hand, it is very rare among Orientals. Races and countries who live mainly on vegetable foods suffer but little.

10. A very important group of causes is the toxic. Over this phase of the etiology of arteriosclerosis much has been said and written. Its importance cannot be overestimated. Unless the thickening of the arteries is wholly due to high tension the quality of blood must be reckoned with as it flows in the capillaries and bathes every tissue. For the sake of clearness in stating the case, the toxic agencies may be divided into the following groups:

(a) The various infectious diseases, as typhoid fever, syphilis, rheumatism, the colon bacillus, and others. It has now been well established that typhoid fever and syphilis stand in very close relationship to arteriosclerosis as cause and effect. Lately some excellent work has been done on the etiological relationship of the colon bacillus to the sclerosis; but more proof is yet required before an opinion can be pronounced. In some