

ON THE EXPERIMENTAL PRODUCTION OF ARTERIO-SCLEROSIS.

BY

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Before taking up the study of the experimental production of arterio-sclerosis it is necessary to ask, What is arterio-sclerosis? (*a*) Is it an entity; or (*b*) are several distinct morbid conditions included under this one heading; or (*c*), what comes nearly to the same thing, in different states which we are accustomed to regard as arterio-sclerosis, do we find the different coats and constituents of these coats affected diversely?

It is necessary, to ask these questions, because, as I shall show, different procedures and reagents have different effects upon the arteries, and whether we are to regard these experimental results as arterio-sclerosis must depend upon our answer to these questions. The subject of classification has been taken by Professor Welch; fortunately, therefore, I need not discuss the various forms. All that I need say as indicating my point of view is that I do not agree with Jore's narrower definition. His extensive studies, which have received much attention, have led him to include only a particular histological change in the vessels as coming into the category of arterio-sclerosis, while the mass of other scleroses in the arteries remains unclassified. He and those who follow him would limit the term to conditions of intimal hyperplasia, with a peculiar splitting of the internal elastic lamina, conditions which can only be distinguished under the microscope.

Are we, then, to exclude the clinician from diagnosing arterio-sclerosis? The answer can but be, No! And this for the adequate reason, that such is not the sense in which Lobstein applied the term arterio-sclerosis in 1835. Let us preserve the broader meaning, and regard all scleroses or hardenings of the arteries as included under this general term, recognizing, if need be, distinct varieties.

Thus I would point out that arterio-sclerosis is not a simple disease. Although, in some instances, a single coat of a vessel is found affected by a fibrous or other allied change, in others several tunics of the same artery are involved. Again, we may find that in a certain form of