

During the acute process the fixed tissues in the immediate neighborhood of the small arterioles are damaged or even destroyed, but abscesses are not formed. In the aorta the destruction of tissue is particularly noted in the loss of muscle and elastic elements. Similar degenerations are common in the heart. At times the degenerative processes are quite extensive, leading to the loss of considerable tissue of the part, and probably weakening the media. The intima of the arteries does not appear to be primarily affected. In the early stages a slight superficial fatty change is sometimes noted, while later, in the chronic stages, the intima proliferates, giving rise to a nodular endarteritis.

The repair, following the inflammatory process of the media and adventitia of the arteries, is by fibrous tissue. Thus the aorta in chronic rheumatism is disturbed by a patchy fibrosis, better spoken of as chronic productive mesaortitis. It is evident that the arteries which are involved in a chronic mesarteritis have lost much of their elasticity and may become subject to a diffuse dilatation of their lumen.

In some respects the acute stage of the mesarteritis resembles the early process of syphilis, but with this difference, that the destruction of the tissues in syphilitic mesarteritis has other qualities, in that the lymphoid infiltration about the vasa vasorum is greater, gummy necroses are often seen, and granulomatous tissue surrounds the areas of greatest reaction. The invasion of the capillaries through the media toward and into the intima is more marked in syphilis, while the nodular endarteritis is also far more decided.

In 1903 Chiari suggested the division of productive mesaortitis (as well as mesarteritis) into two groups, type "A" and type "B" respectively. His type "A" is a chronic inflammatory disease of the media secondary to an intimal process. The mesarteritis type "B" is a primary inflammatory process involving the media, which is usually of infectious origin and most commonly due to syphilis.

As I have on a previous occasion pointed out, Chiari's classification is a good one, but it must always be borne in mind that this type "B" (productive mesaortitis) must include other infectious inflammatory conditions of the media than syphilis. As has been indicated above, the lesions occurring in the arteries in rheumatic fever belong to the group of productive mesarteritis type "B."