

been shown in all cases where an artery is disturbed in its natural bed, thereby affecting the vasa vasorum, that an inflammatory reaction is the result.

From a study of these inflammatory processes two important facts were noted. Firstly, that an inflammatory reaction in the media is evidenced by a leucocytic infiltration about the vasa vasorum and in the lymphatic channels; and secondly, that a lesion of the media of inflammatory nature lead to a chronic proliferation in the intima. This intimal proliferation is the result of cellular and connective tissue overgrowth, similar to the disease which Virchow called "endarteritis chronica deformans" in man, while the medial inflammation is like Koester's "mesarteritis." This mesarteritis passes gradually from the acute inflammatory stage into the process of chronic healing in which fibrous tissue is laid down in the middle coat of the artery. In man the most severe form of this disease is met with in syphilitic arteritis, but no doubt other infections can lead to the same results.

Since the above mechanical experiments were made, several other ways were found to bring about the same results. The chronic endarteritis has been brought about by the intravenous inoculation of bacteria of low virulence. Thus I have been successful in producing an endarteritis chronica deformans in the arch of the aorta and sometimes in the abdominal portion by the injection of old laboratory stocks of the streptococcus or *B. typhosus*. A true inflammation of the media (a mesarteritis) I have not succeeded in obtaining except when an injury had been induced close to the vessel itself. In this case the inflammation of the surrounding tissue spread into the arterial wall.