

In the capillaries certain changes are observed. Their walls on section present a double contour, they may be several times their normal thickness, and the lumen is somewhat narrowed.

The diffuse form of arteriosclerosis is frequently found in connection with renal disease, but may exist independently. The common feature of the condition being continued high tension, which Cowan thinks must be accepted as the immediate cause, though Professor Lindsay holds that a toxæmia is the more important factor. In other words, Cowan contends that the high tension, however caused, gives rise to the arterial changes, whereas Lindsay and others hold that the toxic agents in the blood cause much of the alterations from the normal by perverting the nutrition. This leads to hypertrophy of the media and adventitia, and to irritation and cellular proliferation in the media. These nutritional changes may be accelerated by the quality of the blood contained in the vessels and fed to them through their vasa vasorum. The diffuse forms of arteriosclerosis are manifestations of a general disease, and in this respect differ from the focal forms of atheroma.

My own opinion is that when degenerative changes commence in the arterial walls it is the elastic tissue which suffers first. The nutrition of this tissue is less stable than that of the muscular elements, and will be the first to give evidences of a departure from the normal. I am quite satisfied that this degenerative process may be caused by toxic agents in the blood affecting the vitality of the elastic tissue, or by hypertension either continuous or interrupted, interfering with its blood supply and proper periods of rest.

The clinical course of arteriosclerosis varies much. In some cases it is fairly acute, while in others it is extremely slow in its advance. Not having too close regard for the senile type, we must be on the alert for vascular changes in those of mid-life, or the presenile form. It may show its worst effects in the aorta or coronary vessels. The terrible effects of disease of the coronary arteries on the myocardium are only too well known. Early in the case there is frequently a sense of oppression over the thorax and a feeling of dyspnœa, which later on may become typical angina.

The arteries of the brain and cord may undergo the main degeneration. During the progress of the vascular changes there may be transient monoplegias, extensive palsies, convulsive attacks, or generalized epileptiform seizures. There may be steady loss of memory and mental capacity. In the cord, attacks resembling myelitis may occur.

Arteriosclerosis may affect seriously the abdominal organs, giving rise to the renal, hepatic, pancreatic, and intestinal types. Many of the cases of chronic renal disease are arterial in origin. The disastrous effects