more diffuse in their staining, lose their specificity for the elastin reaction, and later accumulate granular deposits of lime.

The functional fatigue of the arterial musculature appears to result from the unusual activity of the tissues which are supplied by the particular artery. The regulation of the blood supply to any part is dependent upon the control of the blood flow by the musculature of the peripheral arteries. In a much overworked organ or tissue this control of the circulation eventually leads to fatigue of the musculature of the media, which when driven to excess, shows evidence of degeneration. The results of overtaxation of the media are more frequent in the right radial and branchial arteries than in the left. Likewise the external iliac is more markedly affected than the internal, and the femorals with their branches commonly show all grades of medial calcification in men who are active and about much upon their feet. These medial calcifications are more rarely seen in the abdominal arteries. I have repeatedly cut a sclerosed mesenteric, splenic, or renal artery expecting to find advanced medial degeneration, to be disappointed in the unusually healthy appearance of the microscopic sections, save for some fibrous tissue in the intima and adventitia, or evidence of medial hypertrophy. The coronary arteries of the heart, too, do not commonly show this lesion, and it is decidedly unusual in the vessels of the brain.

Now, although the end result in this medial lesion (calcification) is much like that in the intima of the aorta, the processes in these two tissues are quite different. In the intima of the aorta the calcareous process is preceded and also accompanied by atheroma. Thus the early precipitation of calcium salts is associated with much fat accumulation, and this usually continues, so that we find the gritty deposit mixed with a greasy and cholesterin-containing material. As the calcium salts in the intima increase, the gritty masses fuse until calcareous plaques are formed. These, however, nearly always continue to be surrounded by atheromatous material. We cannot agree with MacCordick,