

them. The position of the lesion is fairly constant. They are almost always found along the posterior wall of the aorta, lying between the pairs of intercostal arteries or close to their outer borders. The anterior and outer walls of the aorta are usually free from change. There are instances in which the process extends beyond the posterior wall and becomes quite diffuse. Nevertheless, the most intense lesions are to be looked for along the posterior border of the aorta.

A similar type of lesion is also seen at the base of the aorta just above the aortic ring. Here the yellow dots do not take any definite arrangement, but seem to lie more transversely to the vessel than in the descending thoracic aorta. Similar dots and streaks with a partial longitudinal arrangement are found in the large vessels arising from the aorta, and occasionally they are seen in many of the branches of the vessels of the abdomen.

All these lesions, when seen during the acute stage of the disease which apparently gives rise to them, are found to be immediately beneath the endothelial lining. In some instances the small elevations can be incised with a knife and some fatty material expressed from them. On the other hand, when the lesion is seen toward the end of the causative disease they appear to have a thicker layer of cells covering them, and at times there is a fairly smooth and glistening membrane forming a pearly nodule. Still other lesions are observed in which the yellow streaks are only slightly raised above the surface, and where the degenerative process appears to lie at some little distance below the surface lining.

In a microscopical examination of the vessels showing the superficial fatty streaks of the intima we have found that the process may begin in one of two places. In some instances, changes with the early deposit of fat are seen in the subendothelial layer of connective tissue alone. In other instances this layer may show little or no change, but the fatty change may be confined to the musculo-elastic layer, or what is more common the degenerative changes are found in both layers of the intima. We have noted that in either case an oedematous appearance develops early in the intima in both its superficial and deeper portions. The connective-tissue cells stand widely apart, and there is an indefinite granular material lying in the interstitium of the cells. The connective-tissue cells no longer occupy any particular relation to each other or to the direction of the lumen. In some instances the oedema of the strip of the subendothelial connective tissue makes the layer appear less cellular. On the other hand, it was particularly noted that in a later stage, when fat was being deposited in the tissue, the number of cells to the part increased considerably. The nuclei of these cells were usually oval and stained quite intensely. The cells developed fibrils which stained like those of connective tissue. Beside this were found a few widely scattered lymphocytes in and about the area of degeneration.