

position from the vessel lumen. It is quite probable that not a few atheromatous processes have their beginning in the superficial fatty streaks which are so prone to develop in the course of acute systemic infections. It is of importance, however, to indicate that not all superficial fatty streaks, particularly of the aorta, give rise to atheroma, for prominent and common as these are in acute infectious diseases (typhoid fever, septicemia, pyemia) and intoxications (following extensive burns, cholemia, uremia), they in great part disappear upon recovery from the acute illness. The problem of the permanency of these degenerative lesions is to a great extent associated with the nature of the process, and, as we shall point out later, superficial fatty streaks in which the fat is found within the protoplasm of tissue cells, disappear much more readily than masses of lipid materials in the interstitial substance or in the elastic or connective tissue fibers. Where fat accumulates in undue quantities within cells, which though degenerated are still living, the subsequent disposal of it is controlled by the cell. After removal of the noxious agent the cell on recovery utilizes or discharges the fat in a form which does not localize in its vicinity. On the other hand, the presence of fat or lipid substance in the relatively inactive tissue fibers or in the tissue spaces, is disposed of only by chemical combination, less frequently by decomposition, through the agency of the tissue fluids. Soluble compounds may be the result, but too frequently insoluble compounds with calcium (Klotz, 1905) are the result. It is mainly this which determines the development of atheromatous masses from the superficial fatty streaks. We would thus prefer the use of the term fatty degeneration (as regards arteries) for those processes in which an undue amount of fat is present within cells or their fibrillar processes, while the term atheroma may be applied when the fat lies free in the tissue spaces where it may be recognized both macroscopically and microscopically as a smeary, gruelly mass. From the very nature of the process where cells have undergone fatty degeneration with subsequent death, the atheromatous area not alone contains