the endothelial surface. In some instances the hypertrophy of the musculo-elastic layer was quite remarkable, and in studying the various stages of the thickening of the intima in these lesions it was seen that the muscle hypertrophy preceded any development of connective tissue in the intima. Later, this development of muscle tissue in the intima was followed by degenerative changes simulating atheroma.

Although the medial degeneration was the most constant observation made by various investigators, none of them found sufficient evidence in their studies to associate relationship between the medial degeneration and the thickening of the intima. Ziegler, however, noted in his specimens, that the intimal overgrowth assisted, in some measure, the smoothing out of the depressions produced by the giving way of the media.

In other experiments we have more direct evidence of the production of intimal hyperplasias. Sumikawa found, when the femoral artery of rabbits was laid bare and was painted with a four per cent. solution of silver nitrate or with turpentine, that a localized inflammation followed in the tissues with an intimal thickening. The author concluded that the intimal reaction was a secondary one, following the general inflammatory process of the other coats.

Better results were obtained by the bacterial or toxin inoculations. In using various kinds of organisms, *B. typhi, Streptococcus pyogenes, Staphylococcus aureus* and others, it was found that considerable change occurred in the intima of the arteries, while the media showed little or no change (Saltykow, Crocq, Gilbert and Lion, Sumikawa, Klotz). Endothelial proliferations were seen early followed by an edematous or hyaline-like degeneration of the newly developed layer. In some cases a fatty degeneration was noted in the intima, so that the lesion resembled very closely the early atheroma of man. There was apparently a selective action on the part of the bacterial poisons which acted more particularly upon the tissues of the intima. On no account could the intimal hyperplasia, with splitting of the intimal elastic lamina, and its secondary degeneration be associated with a weakening or disease of the media. The hyperplasia of the intima was, in these infections, primary.