## Oertel: Causes of Death.

substance and had formed deep, retracting scars with a deep ulcer and, by invading the trachea, this had led to perforation into its lumen.

That this process was due to syphilis appears certain, in spite of the fact that a search for spirochætæ pallidæ was made in vain. For we have not only a definite history, but also very conclusive morphological evidence in the aorta and various other parts of the body. The case is of a more general interest, because it is clear cut and emphasizes, first, the difference between ordinary arteriosclerosis and the granulomatous (specific) aortitis. Whatever view we may take with regard to the origin of the ordinary arterio- or atherosclerosis, whether we place it first into the intima or as a primary weakening into the media, it is certain that its characteristic feature is a noninflammatory hyperplasia of the intimal elastic and fibrous tissue, which is characterized by the formation of thick, coarse lamellæ and obliterates the distinction between intima and media.<sup>3</sup> These changes are associated with definite nutritive disturbances which lead to characteristic fatty disintegration of the intimal and medial tissue with the formation of the atheromatous ulcers, which undergo calcification. Contrasting these changes with what we find in this case, we appreciate that we are dealing with two entirely different lesions in genesis and character.

The specific syphilitic lesions of the aorta have only recently received more careful attention and been separated from those of arterio- or atherosclerosis, although the syphilitic affections of the smaller vessels have received much earlier recognition. Heller, and his pupils, particularly Doehle in 1885 and 1895, Backhaus, Moll, and Isenberg described cases of granulomatous mesaortitis, which they regarded as syphilitic in origin. Later, Heller gave before the German Pathological Society, in 1899, a

<sup>&</sup>lt;sup>3</sup>This is particularly important, because in inflammatory aortitis clear distinction between intima and media remains and the newly formed elastic fibres are thin and delicate. (See Fig. 5.)