

## THE RELATION OF MYOCARDIAL AND ARTERIAL CHANGES TO VALVULAR LESIONS.\*

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I know of no better theme on which to address you this evening than the somewhat well-worn, but, nevertheless, interesting subject of cardiac disease, excluding valvular lesions. It is a theme of interest, because with advancing years, every one of us who lives to early old age will probably develop in some degree, at least, certain changes in his heart muscle and in the blood vessels themselves which will sooner or later modify his capacity for work and even, perhaps, for the enjoyment of life; and, again, it is a noteworthy fact that no pursuit in life so commonly brings on these pathological states as does that of the physician. Our ranks are yearly thinned at the top by the onslaughts of cardio-vascular degenerative changes, and we find men like Pepper and Da Costa dropping suddenly out of the forefront from true angina, having suffered, as only such cases can suffer, from attack after attack of the malady before the fatal one appeared upon the scene. The reason for these facts is not so far to seek as would seem at first glance; for it is certain that it is in those who earn their bread by their mental powers that these affections are wont to develop, whereas in those who live by manual labor, angina is very rare. In a large hospital and dispensary experience of twenty years I have no recollection of seeing more than a few cases of true angina pectoris in the working classes, although false angina, neurotic or due to aneurism has been more common. On the other hand, every one knows that the class that works with its hands presents to us constantly the most extraordinary degree of atheromatous changes in the sense of thickening of the vessels, the deposit of calcareous matter in their walls and the development of cardiac hypertrophy or cardiac breakdown. It would seem that the coarse changes just spoken of, rarely produce the actual high tension seen in the mental worker, in whom, as a rule, at least in my experience, the deposition of lime-salts in the vessels of the periphery is as rare as vascular spasm is common. The primary cause of the frequency of cardio-vascular lesions in the well-to-do is, aside from high living and lack of exercise, the stress which is thrown upon the circulatory system by great and prolonged nervous and mental effort, which not only disturbs the nerve supply of the circulatory system but calls upon those organs to provide blood to a brain which, because of its activity, requires a large supply of blood delivered to it in rapid flow and under high pressure—a pressure which is far in excess of that produced by severe physical effort, which is usually followed by a period of sound sleep and complete rest; whereas, the former is as commonly followed by disturbed rest or insom-

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