

Original Communications.

NOTES UPON CARDIAC HYPERTROPHY.

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I shall, I think, best satisfy you, and at the same time myself, if what I contribute to this evening's discussion takes the form of a series of notes upon the experimental pathology and the anatomy of cardiac hypertrophy, rather than that of an academic survey of the subject from the clinical standpoint. Frequently, it is true, I must of necessity illustrate what I have to say by reference to clinical history, but, on the whole, I shall leave the clinical aspects to be dealt with by those more capable.

In the first place, if we study the causes of hypertrophied heart, whether of hypertrophy of one or both sides, we see this that reading the clinical history of these cases the assigned causes of hypertrophy may be summed up under the heading of *increased work*. This one heading may be subdivided into three, increased work due to resistance from within, increased work due to resistance from without, increased work due to nervous stimulation and augmentor action. I shall not discuss this last subdivision, because frankly we are ignorant how far the hypertrophy that occurs in exophthalmic goitre and allied conditions is due to heightened blood pressure, and how far it is secondary to excitation of the accelerators or augmentors.

Of the increased resistance from within, or increased tension, the main causes are, heightened pressure in the arterial blood stream, and secondly, obstruction to the onward passage of blood within the heart itself, by stenotic diseases of one or other orifice. Of resistance from without, the one great cause is pericardial adhesion. To-night we have, as far as possible, to leave out the subject of valvular disturbance, and I shall neglect nervous disturb-