

hypertrophy or dilatation separately or in combination.

All clinical observers who have seen much of disease of the heart must have been struck with the fact that the inconvenience and suffering attendant on lesions the same in character and extent, differ widely in different cases.

What are the circumstances on which this variation as regards tolerance depends? This question not only has a bearing on the prognosis, but it is of great importance in relation to management. I will devote to it a few remarks.

In general terms, chronic diseases of the heart, as of other organs, are tolerated in proportion as the functions of the body, exclusive of the part diseased, are healthfully performed. The internal conditions of general health and constitutional strength relate especially to the series of functions which begin with ingestion and end with nutrition. Other things being equal, the toleration is best and longest when, *first*, of all, the ingesta are ample; *second*, when digestion is active; *third*, when, owing to adequate assimilation, the constituents of the blood are in normal proportion; *fourth*, when the nutritive supplies in the blood are well appropriated; and, *lastly*, when the secretory and excretory organs do their proper work. Now, a healthful performance of these functions is not incompatible with considerable damage of the central organ of the circulation; and, in so far as it is practicable to maintain these functions at, or near to, the state of health, the toleration of diseases of the heart will approximate to completeness. *Per contra*, the toleration will be incomplete in proportion as the functions of the body, exclusive of the heart, are feebly or imperfectly performed; in other words, in so far as the conditions just named of general health and constitutional strength are deficient. The blood may be considered as representing the healthful performance, or otherwise, of the functions of nutritive and destructive assimilation; so that the simple phrase, *healthy blood*, comprehends the grand requirements for toleration.

In these few remarks on the circumstances on which the variation, as regards tolerance in different cases, depends, I have opened up the governing principle in the management of chronic diseases of the heart. The great object of management in all incurable affections is to prolong and to render as complete as possible the tolerance of them. The prognosis in individual cases will be much affected by a full appreciation of this object, and of the means for its promotion. Here, once more, we are obliged to admit that the knowledge of the ex-

istence of cardiac disease is sometimes a calamity. Take the case of which I have given an account, in connection with the topic under consideration, suppose the patient, whose heart doubtless for a long period was greatly enlarged, had been assured of this fact years before his death; and, with this assurance, it had been enjoined upon him to be abstemious in diet, to watch carefully his digestion, to avoid physical and mental exertion as much as possible, and to await quietly a fatal termination—it is probable that the tolerance, which was such a marked feature of the case up to a short time before death, would have given way long before, that his comfort and usefulness would have been impaired, and his life shortened. It is a rational conclusion that these effects would have resulted from the depressing influence on the mind, insufficiency of alimentation, disordered digestion, and, owing to mental and physical inactivity, defective nutrition, secretion, and excretion. It would be easy to enlarge upon the object of management which has thus incidentally suggested itself, but I must not forget that the subject of this paper is the *prognosis* in cases of chronic diseases of the heart. It is evident, however, that, if I do not overestimate the importance of tolerance, as an object of management, and of the means which have been alluded to, for the promotion of this object, the prognosis is in no small degree affected by the practice pursued in individual cases. Here, as in other points of view, treatment is an element in prognosis by no means to be overlooked.

A few words respecting fatty degeneration of the heart. The remarks having reference especially to valvular lesions and enlargement are in the main applicable to this affection. But it is to be remarked that there is a notable difference, as regards diagnosis, between the former and the latter. Not only the existence, but the extent, of the valvular lesions and enlargement, may be determined with great precision by means of physical signs. It is not so with respect to fatty degeneration of the heart. This affection has no definite signs. The diagnosis is inferential, being deduced from the evidence of permanent weakness of the heart, taken in connection with the symptoms, age, and other circumstances. It is fair always to give the patient the benefit of doubt or difficulty in diagnosis. If the experience of those whom I address accord with mine, they will be able to recall cases in which fatty degeneration was inferred, and the subsequent history showed the inference to have been incorrect. This is a point to be considered in respect of prognosis, the more because, as will presently be seen, fatty degeneration of the heart belongs among