

such a lesion? What, in other words, can be done to prevent the connective tissue formation assuming a great degree?

There is one great principle in the treatment of inflammatory affections which we must endeavor to carry out here, and that is

#### REST.

Rest to the inflamed valves. Complete rest is, of course, impossible, but relative rest is to some extent obtainable. By giving the valves less to do, we in a measure limit the extent and degree of the inflammatory process going on in them. The lower the blood pressure is, the less work will the valves have to do. The treatment, then, consists in those measures which lower or depress the blood pressure. The first important point to attend to is absolute rest in bed. It is not necessary to insist on the importance of this—it is self-evident. We, however, may have a high blood pressure in spite of bodily quiet. The amount of fluid taken in should be limited, for it is a well recognized physiological fact that a *dry diet* is the most efficient means of lowering blood-pressure. This has been conclusively proved by Kussmaul and Tenner's experiments. Of drugs, we have a number that markedly lower the blood-pressure, prominent among which are chloral and the nitrites. The judicious use of chloral in cases of endocarditis is, according to Fothergill, a very efficient way of limiting the sclerotic process. In the nature of things it is impossible to estimate the value of this treatment in any individual case. It can only be expected that at best we can limit the diseased process, and to what extent this is accomplished in any case it is impossible to tell. No doubt blood-letting is a powerful way of lowering the blood-pressure, but its action is very temporary, and therefore not nearly so efficient as a strict adherence to a dry diet. On physiological grounds I should judge that the employment of frequent blistering over the cardiac region is injurious. At best, the action of blisters on the inflammatory process is very doubtful, and we know that such strong irritation of the skin does, reflexly, tend to keep up a high blood-pressure. The trifling amount of serum drained from the tissues may be eliminated.

#### THE TREATMENT OF CARDIAC DISEASE DURING THE PERIOD OF COMPENSATION.

When from any cause we have an obstruction to the outflow of blood from the heart, there is a damming up of the blood in the lesser circulation, which soon leads to changes in the vessels and in the heart itself. The changes in the vessels are obviated for the most part by the secondary compensatory changes in the heart. Compensation can never be perfect, still it is so perfect frequently that the patient is quite unconscious for many years of any circulatory disturbance or trouble whatever. We may say, that practically we do meet with perfect compensation. As long as the heart is able to overcome the mechanical obstructions heaped up by disease, then so long will the patient remain well. In other words, while compensation is good all is well.

The treatment is now directed to the maintenance of this compensation. Sooner or later in many cases it shows signs of failing, the earliest indication being usually shortness of breath. What can we do to prevent compensation from failing, and when it threatens or has actually set in, what measures should we employ? The answers to these questions are all important.

Given a case of acute rheumatism, where there develops during its course an acute aortic valvulitis, with subsequent sufficient compensation to enable the patient to attend to the ordinary duties of life, what advice are we to give? How should the patient live in order that he may keep up his cardiac compensation?

There are certain general therapeutic principles which it is important to bear in mind in all cases, no matter what the cause of the circulatory disturbance is. The first is the strengthening of the heart-muscle. It is important to remember that the heart is a muscle, and that its strength is increased by all those influences which increase other muscles. The usual advice given to patients affected with heart disease is to rest as much as possible, so as to leave but as little work as possible for the heart to do. Recently Oertel, of Munich, has practised an entirely different method of dealing with these cases. His method of treating these