

ment of worry. A healthy life with gentle exercise and abundant sleep, for which purposes chloral or bromides may have to be used, is the treatment to be adopted.

Sub-normal Rhythms:—The sub-normal rhythms may be divided into several classes. The first may be described as true bradycardia; in these cases the rhythm is normal in character but slow. This may be due to inherent conditions in the heart muscle, in which case caffeine and camphor⁴ given subcutaneously are the drug stuffs which seem to be indicated. Both of them increase the rate of the heart's action. The second cause of a true bradycardia may be vagus irritation, due, for instance, to meningitis, cerebral tumours, or occur owing to reflex irritation from the abdominal cavity. These cases are of course best met by doing away with the original cause, or by some drug stuff such as chloral or bromides which decrease the activity of the vagus centre.

The second class of subnormal rhythms are combined with irregularity. Bradycardia is often diagnosed when the condition is one of missed beats (that is, those cases in which every alternate ventricular contraction is not of sufficient force to cause a pulse wave at the wrist), or when the condition is one of heart-block (that is, when each auricular beat is not followed by a beat of the ventricle but when possibly only every second or third auricular beat is so followed). In these two last types of sub-normal rhythm (missed beat, heart-block) caffeine, which increases the conductivity and also the rate, seems to be the most promising drug stuff to use in treatment if any is needed.

Changes in contractility might also be of two types: hypercontractility, of which we know nothing, and sub-normal contractility, which occurs so commonly in acute toxæmia. In this case digitalis has also no, or little, action. Caffeine also seems to be uncertain, for adrenalin the evidence is slight but promising, and barium chloride remains still to be tried. In moderate fever digitalis does improve the contractility as does adrenalin. When the sub-normal contractility is due to exhaustion owing to over-work of the heart, as occurs in broken compensation, and is combined with dilatation, digitalis is to be relied upon to restore to contractility and tone. Caffeine is also of service. Rest and gentle exercise are the important factors in making the heart capable of performing its function, with some small reserve for use in emergencies.

Conductivity may be decreased in certain types of heart disease. In these cases we find that either the conduction from the point of origin of the normal heart wave about the mouths of the great veins or from auricle to ventricle through the bundle of