

OSTEOPATHIC LESIONS OF THE HEART

Probably in a broad sense all osteopathic lesions influence the heart's action, through bodily tone, reflex action, or reciprocal circulatory innervation. Owing to the heart being part of the extensive and comprehensive circulatory system it could hardly be otherwise. But many of these manifestations at first, at least, would come within the category of functional upsets in so far as the heart is concerned. Of course some of them may cause more or less conscious heart disturbance, but this will be quickly rectified as soon as the more or less general imbalance of extraneous mechanisms are adjusted. Somewhat like-wise we have in digestive disorders a fruitful source of heart disturbances.

Various infections are common starting points of organic heart lesions as every practitioner well knows. One of the essential preventive treatments in infections is to fortify heart integrity. To just what an extent a normal heart will resist infectious organisms may be an open question, though no doubt tissues that are nutritionally intact will commonly resist involvement unless there is some special physical strain or the infection is overwhelming as to virulency or quantity. Absolute rest, thorough elimination, careful dietary attention, as well as removal of the septic focus, are added essentials to specific care of the heart's innervation. This emphasizes the point I wish particularly to dwell upon, the osteopathic lesions that may involve the normal working of the heart itself.

In my experience, I find the most common lesions affecting the heart embrace the upper four dorsals, vertebrae and ribs. Occasionally the lesion is as low as the fifth. The second and third segments are most often lesioned. It does seem that in a number of instances the maladjusted rib or ribs, especially of the left side, are the lesions immediately at fault in so far as the heart disturbance is concerned. For even a slight change here in position of the rib lesion will quickly influence the heart, though in most cases of rib maladjustments the alignment of the corresponding vertebrae

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is faulty, usually some combination of rotation and sidebending with slight kyphosis. The relative importance of the rib lesion here (though I would place the vertebral lesion as usually the basic one, that is primary to the rib twist, in osseous lesions, still muscular imbalance may be the starting point of the entire structural derangement) to rib lesions lower down involving other organs may be due to two possible causes: first, the particular sensitiveness of the heart functioning to nervous lesions, and, second, to the apparently firmer retention of the parietal layer of the pleura against the ribs and sympathetic chain.

It is a fundamental osteopathic tenet that compromise of nervous integrity is certain, first, to disturb function, which if maintained will through various, and probably varied, gradations lead to organic involvement. Many of the changes, in my opinion, relative to the spinal pathology are on a reflex basis, exactly parallel, in a sense, to its physiology, in other words, there is some disruption of the integrative action of the local nervous mechanism. This does not preclude the possibility, and even probability, that in some lesions, especially some of traumatic origin and others of fibrotic changes, where either may definitely encroach upon the tissues within the foramen, rect pressure conditions may be forthcoming. But these latter do not include many other lesions due to muscular imbalance from many possible sources, postural defects, etc. where the structural malalignments are well within physiological movements of the spine but nevertheless anchored and disturbing nervous equilibrium.

Though these upper thorax lesions may readily affect the heart's functional integrity by way of the stellate and inferior cervical ganglia, this sympathetic disturbance does not necessarily simply derange the ordinary balance maintained between the sympathetics upon the one hand and the vagi upon the other. In my experience, there is every clinical reason or evidence to believe that structural changes in the heart may follow, showing that to a certain extent at least organic integrity is partly

dependent upon normal nerve impulses. I have seen case after case of myocarditis, of dilatation and of valvular leakage undoubtedly respond to adjustment of these osteopathic lesions. Not that valvular leakage due to distorted or misshapen valves can be restored to normal, or that a severely involved myocardium can be made as good as ever, but there is no question in my mind that osteopathically normalizing the upper dorsal will produce a definite effect upon the muscular tissues of the heart. It is one very important factor to consider in these cases. Of course sufficient rest and general care are necessary, but this alone will not secure the results that the combined work will do. In my opinion, it is one excellent example of the potency that removal of nervous lesions has upon visceral tissue.

Now as to the correction of these particular upper dorsal lesions. I would caution care in cases where there is considerable structural damage of the heart. By no means in instances of well defined osteopathic lesion or lesions, thoroughly anchored, attempt to adjust at one sitting. Here we are dealing with something quite different from a simple spinal lesion alone, or a spinal lesion that is affecting a less vital organ, for example the stomach or liver. If compensation is not complete one should remember that the entire circulatory system is more or less compromised and any severe adjustment may result in profound reaction: in such conditions care should be taken to bring about correction slowly, giving the organism time to keep pace with readjustment changes. This is very important, particularly in heart cases, owing to delicacy of mechanism and possible general condition as just intimated, but the same holds good in some other lesion adjustments. Too frequent and too hard treatments may simply keep the parts irritated, especially if the interim between treatments is short. No doubt all of us have made mistakes here at times. Time is required to loosen up and normalize fibrous tissue in order that apposition may be secured, and time is also needed upon the part of nature to repair and restore visceral tissue.

It is surprising how many times a slight lesion will affect the heart's

nervous mechanism (a twisted rib alone may do it), while again a deep seated upper dorsal maladjustment may have no effect whatever upon the heart. The problem of the osteopathic lesion is as extensive as the total clinical picture of the lesioned individuals. There are always several factors that enter the equation. Heredity, environment, habits, mental condition, fatigue, posture, infection, etc., things that contribute to the makeup of an individual at a given time, as well as the actual lesions, osteopathic and visceral, presented, the latter ranging from so-termed specific ones to other spinal ones that may predisposing conditions whereby the upper dorsal condition, for example, is actually secondary to a lumbar-sidebending, are all to be considered. Then there are the cases where the lower ribs are displaced downward, tending by their position to drag the diaphragm downward and weaken its tone so that circulatory conditions below the diaphragm are compromised with a resultant laboured effect upon the part of the heart. The abdominal circulatory field, as well as the abdominal digestive and nervous fields, should never be neglected in heart disorders.

Intimately allied to the dorsal spine from a mechano-etiological standpoint is the cervical spine and its many possible lesions, though, of course, lesions may be independent as well as the only ones found existent in a given instance. The big the cervical region that I find in connection with my heart cases is the condition of the upper three cervicals, especially lesions involving atlas and axis. The relationship may be a disturbance of fibers from the second spinal nerve that pass into the vagus. Lesions in this region are common, and they are frequently disturbers of the heart's functioning. It does not require much of a lesion here to definitely affect these nerves. These lesions are easily overlooked. They are generally some form of slight rotation and fairly firmly anchored. The rigidity in so far as mere structural mechanism is concerned is commonly compensated by hypermobile lesions of a vertebra or two below. These are easily moved or "popped", which may readily mislead one into thinking that the primary lesion above has been influenced. But of course such structural hypermobility upon the mechanical plane has practically no influence or

effect in overcoming the disturbed physiology of the rigid area above. It often requires considerable precise preparatory work before the fibrotic condition can be released and the joint planes apposed.

Two or three broad physiological points should be kept in view when considering our heart cases and particularly in relationship to the vagus. In the first place, the vagus affects the rate and strength of the heartbeat, as well as having some influence on the conductivity of the cardiac muscle. Fibers from the right vagus pass to the sinoauricular node, and from the left vagus to the auriculoventricular bundle. It is easily seen what the effect upon rhythmic power of the heart, rate and strength, and conductivity of impulse lesions of the vagus may produce. It is not our purpose here to enter into a discussion of the slowing of auricular and ventricular beats, partial heart-block, fibrillation, etc., but the osteopathic clinician will find himself enabled to do some thoroughly effective work in certain of these cases by careful attention of the vagus control of the heart of which adjustment of the upper cervicals form an important part. Of course the true explanation of the effect of these lesions osteopathically may not be altogether based upon the communicating branch of the second spinal nerve as intimated above, for these osteopathic lesions may have a far different effect through disturbing the circulation and chemism of the deep centers of the vagus. The vertebral artery is one possible factor. But the essential or practical point here is that correction of these lesions is often effective.

The tone of the vagus center is a basic consideration, the afferent impulses of which arise from nearly every part of the body, showing how necessary it is to have a unified and normal physiological action of the entire organism. The osteopathic lesion may, and probably often does, act as some local break or disturber of a mechanism within a mechanism, comprising physiological unity and leading to a region of lowered resistance or impairment, which in turn may have far reaching effects depending upon locality of lesion, character of injury, the time factor and not infrequently infection. Vagus tone is enhanced by maintaining normal

respiration and digestion, of which Proper exercise such as walking is of special benefit. It can be readily seen how the heart is thus helped through this, but it by no means explains or includes all the beneficial influences secured by such measures. Although the effects of the sympathetic nerve and vagus are described as being opposite in so far as the heart is concerned they are not antagonistic to the point of neutralization. Physiologists claim that if both are stimulated the first effect on the heart is that of the vagus while the sympathetic effect comes later. These nerves in conjunction with the vasomotors form the nerve control of the heart. The latter can be distinctly influenced osteopathically through the upper and lower dorsals. There is probably no other field that offers such clear cut demonstrations to the clinician as the affect of osteopathic lesions of the heart and their removal.

The sixth and seventh cervicals owing to their relationship to the heart sympathetics are important. Many of the lesions here are secondary to the dorsal ones, but they may be so rigid and anchored that special attention is demanded. I do not question the results secured here by those who employ spinal percussion in certain heart lesions, but it has always seemed to me that there must be an underlying cause for these inhibitory conditions, as the employment of stimulation implies, and so if the structural spinal lesion that is producing the inhibition is removed, nature will readily take care of the required stimulation. Nevertheless it is an interesting confirmatory work, and shows how basic self-repair is when even a slight impetus is added, and, also, that many lesions require very little specific adjustment in order to become normalized.

Another osteopathic feature is to examine carefully the status of the first ribs and clavicles.