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The Osteopathic Lesion as the Etiological Factor in Some Common Surgical Disorders*

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That the osteopathic lesion is a predisposing factor in the production of surgical disorders, except of course in instances of obvious trauma, is practically axiomatic. The lesion, by affecting blood, lymph, and nerve flow, becomes responsible for the production in the tissues of the *locus minoris resistentiae* so necessary for the location and propagation of infection; for the development of stasis with its subsequent degenerative manifestations, and for the nerve irritability which results in excess, defect, or perversion of function in structures directly influenced.

The foregoing statement is not in accord with the modern surgical concept as laid down by the authorities of the dominant school of therapy. It should be exactly in line with that of the surgeons of the osteopathic school of therapy.

The facts upon which this paper is based have been gleaned from the findings of research men schooled in the methods and steeped in the theories of the allopathic school of medicine. It is only in the application of these findings with the breadth of vision resulting from a working knowledge of the principles and practice of the osteopathic fundamentals that any originality is claimed. The whole idea has been to utilize the findings of the M.D. research men to show that when interpreted from the standpoint of the osteopathic concept of the lesion, the etiology will have been clarified and amplified; the character of treatment, of necessity, will be changed very largely, and the prognosis will be on a more rational, safer, and less empirical basis. Furthermore, through the influence of this idea, certain conditions brought about by irritation of the vegetative nervous system and which have been thought to be amenable only to surgical intervention, will be attacked by simpler, safer methods of treatment more in accord with the fundamental laws of body mechanics.

Only a few of the more common so-called surgical conditions will be mentioned at this time.

*Delivered before the General Sessions of the Fifty-First Annual Convention of the American Osteopathic Association, July 24, 1947. This paper is substantially the same as that published in THE JOURNAL OF THE AMERICAN OSTEOPATHIC ASSOCIATION for October, 1934. Nevertheless, the basic principles as set forth by Dr. Conley are as applicable today as they were 13 years ago, and reprinting is justified. This article is particularly timely in view of the fact that Dr. Louisa Burns' new book, "Pathogenesis of Visceral Diseases Following Vertebral Lesions," is in the process of publication and will soon be ready for sale to the profession.

THYROTOXICOSIS

First, thyrotoxicosis will be considered in the light of present-day medical knowledge. Authorities are agreed that the cause of the disease is unknown; that some influence whips the thyroid into a state of pernicious activity so that it not only provides its secretion in quantity to care for the normal needs of the body, but also far in excess of its demands. It is known that certain stimuli excite activity on the part of the thyroid. These may be chemical, bacterial, emotional, or metabolic. When the irritation ceases or is removed, the gland instead of reverting to normalcy, still continues its headlong, perverse course. Not only that, but in pregnancy the thyroid enlarges normally to meet the increased demands made upon it, usually from the fourth month until delivery. Usually following delivery the thyroid undergoes the process of involution back to normalcy. In certain cases this process does not take place, but the activity of the gland increases beyond all reason or expectation. It is in these cases that the "unknown" element enters.

Also, in cases of emotional shock from whatever cause, there is sudden increase of thyroid activity, which subsides as a rule without damage of any kind to the individual. Occasionally, the activity continues with increasing energy. Here again the activating influence remains hidden or unknown.

When surgery is invoked and the major portion of the thyroid has been removed, this hidden cause continues to manifest its influence upon the remainder of it which may eventually result in a second, third, fourth, or even fifth operative intervention.

Wilson¹ of the Mayo Clinic noted the fact that evidences of irritation to the cervical sympathetics were present in all cases of exophthalmic goiter he had had opportunity to examine and concluded his paper with the statement that the evidence adduced "... supports the suggestion that in exophthalmic goiter the thyroid receives its stimulus to overfunction through its nerve supply, and as a result usually of a local infection involving the cervical sympathetic ganglia."

Crile,² stated "I am of the opinion that the greater part of the benefit from ligation [of the superior thyroid artery] is the result of a break in the nerve supply of the thyroid, since the principal sympathetic nerves run in the walls of the superior thyroid arteries."

Boyd,³ gives expression to the following suggestion with respect to goiter: "May the conditions not be due to a far-reaching disturbance of body metabolism from some unknown cause, as a result of which a demand is made upon the thyroid for additional secretion."

I shall now consider the aforesaid facts from the standpoint of the osteopathic lesion and known clinical osteopathic facts.

Burns⁴ has demonstrated pathological tissue changes resulting from an osteopathic lesion. This is in accord with Wilson's¹ findings relative to the concomitant disturbances in the cervical sympathetics for the reason that, in osteopathic etiology, lesions affecting the cervical sympathetics are the rule in the presence of hypertoxic goiter. It is also in accord with Crile's² statement relative to ligation of the superior thyroid artery in that the irritating impulses from the cervical lesions are broken by the act of ligation of the sympathetic nerve trunks accompanying the artery.

Lesions in the upper thoracic area also have long been noted as etiological factors in hypertoxic goiter. This satisfies Boyd's³ assumption relative to "far-reaching disturbances in metabolism" which are undoubtedly due to the influence of said lesions upon the upper four thoracic nerves which control the secretions of the adrenal glands. These secretions influence tissue change throughout the entire body.

The activating influence of these lesions explains also the tendency for the recurrence of symptoms following thyroidectomy and their correction would obviate the need of adrenal sympathectomy as advocated by Crile² to prevent such recurrences. Clinically, osteopathic physicians have demonstrated the truth of the above assertions.

It is noteworthy that leading clinical surgeons are awakening to the fact that the mere removal of a portion of the struggling thyroid gland is not the last word on treatment for thyrotoxicosis. They sense the influence of an unknown factor, a missing link. They are searching elsewhere for it and are turning to the previously mentioned overactivity of the adrenal glands. This postulate was advanced by Sajous⁶ in 1904, hence is not new. They are getting results temporarily at least by curtailing adrenal activity by section of the sympathetic nerve supply.

How much more scientific it would be to go back to the original cause of the irritation of the thyroid gland and attack the problem there by correcting the osteopathic lesion responsible for it, rather than to try to dam the stream of deleterious affects by cutting the lines of communication with other structures.

Clinically the correction of the osteopathic lesion accomplishes that very result with amelioration and relief of symptoms in approximately 75 per cent of such cases.

PEPTIC ULCER

Here again is a problem that is baffling the research men and the clinicians of the dominant school. Again the mysterious influence of an unknown cause clouds the issue.

It is well summed up by Boyd⁷ who writes, "When the problem is reduced to its simplest terms we may say with assurance that the ordinary peptic ulcer is the result of the continued action of the gastric juice on an area of lowered resistance in the stomach wall. This simple statement does not, however, carry us very far, for we are in ignorance of the exciting cause responsible for this area of lowered resistance, nor do

we know why in some cases the result is a superficial erosion whilst in others it is a penetrating ulcer which refuses to heal."

Many etiological factors have been postulated to explain this hidden cause. The elective affinity of non-hemolytic streptococci for gastric or duodenal mucosa; spasm of arteries in the walls of the stomach producing areas of ischemia; spastic contraction of the muscularis mucosae of the stomach interfering with local areas of vascularization; thrombus or embolus of gastric vessels due to their peculiar arrangement; muscular spasm and venous congestion, particularly in the fundus area concomitant with vomiting, have all been advanced.

Aschoff,⁸ speaking of erosions which antecede ulcer, says, "Circulatory disturbances, however, represent the most important source. These may be either direct or indirect through spasms of the stomach musculature."

Durante,⁹ says that section of the median and minor splanchnic nerves on the left produce ulcers which tend to become chronic; that peripheral nerve disturbances "... are capable of producing irritations in the sympathetic system entirely comparable with those I obtained by means of surgical interference." He states that these disturbances may be toxic, bacterial, chemical, or biochemical. He might have included trauma as well, for such influence is most obvious.

On the other hand, Crile¹⁰ postulates the overactivity of the adrenal sympathetic system as a "booster station," which picks out a gland, tissue, or organ and makes it do more work, then "... something happens [in certain people] to the lines of communication and ... the activity can't be stopped." Thus section of the adrenal sympathetic nerves relieves peptic ulcer. Be that as it may, the fact is noted that in certain people "something happens," a hidden, unknown cause enters into the picture which is responsible for the continued activity and the selection of the organ or structure in which the pathology manifests itself.

No matter what the viewpoint, the cause for the "point of low resistance" remains a hidden factor and invariably the treatment is directed toward counteracting the effect of this hidden cause—hardly the logical procedure.

Burns¹¹ has shown the effects of lesioning the fifth, sixth, and seventh thoracic nerves upon the stomach to be that of increased secretion, constriction of gastric blood vessels, increased peristalsis, and contraction of pyloric sphincter, and that all healthy rabbits with lesions of the fifth and sixth thoracic of more than 6 months' duration, had gastric ulcers.

All osteopathic physicians are familiar with the facts that lesions to the thoracic vertebrae from the fifth to the ninth, particularly the fifth and sixth, have an influence upon the stomach. Inasmuch as the sympathetic nerve supply to the adrenal glands arises from the lateral horns of the segments of the spinal cord from the fifth to the ninth just as that of the stomach, it is easy to understand the observations of Crile¹⁰ as to the influence of the adrenals upon the stomach, the reason why the stomach is the organ which receives the brunt of the attack, and why the activity cannot be stopped by medicinal means.

In every postulate laid down by research men and pathologists, the osteopathic concept of the lesion reveals the hidden factor so puzzling to them; locates the structure or organ which is vulnerable; clarifies, illuminates, and expands both the concept of the cause

and the effect of the stimulation which whips them to increased persistent and pernicious activity. It is due to the presence of these unrecognized lesions that the urgent stimulation of the stomach, arising from the adrenals, tends to bring about recurrence of ulcer. Naturally section of the adrenal sympathetics or partial adrenalectomy will tend to hold in check the manifestation of the "boosting" action, but I wonder if in time the same tendency to recurrence noted in the thyroid following partial resection will not be the rule in the adrenals with the inevitable return of the pathological conditions.

NEUROCIRCULATORY ASTHENIA

Neurocirculatory asthenia is an allied condition which must be taken into consideration with the two diseases just discussed. The name of this disease does not call to the mind any distinctive pathology. It is in fact a meaningless name coined to designate a syndrome practically inexplicable to the average clinician. There is no organ that one can designate specifically and say, "Here is the causative factor."

Lately attention has been focused upon the adrenal glands as the exciting agent responsible for the clinical picture which has received the aforementioned name. However, none has indicated the reason why the adrenals in certain individuals manifest their excitability whereas in other individuals of similar type and under identical environmental conditions no untoward activity results. To refer this activating impulse to the anterior lobe of the brain without a qualifying cause is meaningless. To say the adrenal glands are the brains of the sympathetic system does not solve the question. Neurocirculatory asthenia is characterized by symptoms easily confused with thyrotoxic goiter. Tachycardia, nervousness, muscular tremors, loss of weight, fatigue, and an erratic basal metabolic rate make up the clinical picture.

However there is a difference, and one which the general practitioner can easily determine; the tachycardia is as variable as the basal metabolic rate. The pulse rate may be exceedingly high, 160, 170, and 180, and then, under the influence of changed environment, it will slow, even to the normal. With the thyrotoxic heart, this never happens; the pulse rate never reaches normal until the condition is cured.¹² Likewise the basal metabolic rate is high on some occasions, low on others, and normal at still other examinations. But the rest of the picture corresponds with thyrotoxic goiter even to the presence at times of an enlarged thyroid and staring eyes.

The physical examination gives no clue except as is based upon and receives osteopathic interpretation. In these cases there is absence of lesions affecting the innervation of the thyroid gland and the presence of those which directly affect the adrenals. In these cases one finds characteristic lesions in the upper four thoracic vertebrae, particularly at the first and second and there may be others in the lower splanchnics at the ninth, tenth, eleventh, and twelfth.

The lesions in the upper thoracic vertebrae not only affect the nerve fibers which activate or inhibit the adrenals, but also directly influence the accelerator nerves to the heart through the inferior cardiac ganglion which lies in close apposition to the head of the first rib on the left. Thus we have the factors which primarily bring about a neurocirculatory asthenia and which alone can explain the vagaries of heart action, metabolic instability, and adrenal activity.

Scientific relief lies not in surgical resection of the nerve supply to the adrenals, but rather in the reduction of the lesions responsible for their irritability and that, in my limited experience with this confusing condition, is the procedure necessary to obtain the desired results.

GALLBLADDER DISEASE

The diseases of the gallbladder, particularly cholecystitis and gallstones must be mentioned, especially from the standpoint of etiology and prognosis. According to Walters and Snell,¹³ "No form of cholelithic diseases, gallstones in particular, appears as a primary disorder; there must be an initial injury to the structure and function of the gallbladder, which in turn may develop to the point of complete functional incapacity, formation of stone or a state of chronic infection, individually or in combination. The nature of these hypothetical initial injuries never has been satisfactorily determined; one or several factors may be responsible."

As matters now stand, the prime clinical interest in gallbladder disease lies in its surgical aspects. Surgical resection is the beginning and the end. Unfortunately this condition is not recognized until its pathological manifestations are so deeply rooted that palliation is only a waste of time and money. Permanent relief is impossible to achieve by such procedures. Also, palliation may lead the patient to a fateful misconception of the true gravity of the condition. As a rule surgery is the procedure of choice. As soon as the hospitalization is completed the average surgeon considers his duties completed, sends the patient back to the referring physician, and promptly forgets the aftermath which may follow. The referring physician, after the successful completion of the surgical maneuver, assumes that the patient is well on the high-road to recovery, and he, too, forgets him. The patient's condition far too often remains unchanged or may be even worse than before. The natural question arises as to why this should occur.

Louisa Burns,¹⁴ is quoted by Downing as stating, "Following lesions of the seventh thoracic segment the walls of the gallbladder and spleen become wrinkled and the viscera diminished perceptibly in size; color paled slightly. Thereafter the walls relaxed, the blood vessels filled beyond normal, the color became dark and venous, and the size of the viscera mentioned increased somewhat above the normal. This condition was permanent."

A cursory survey would indicate that most cases of gallbladder disease occur in the fifth and sixth decades of life—a much smaller number in the fourth decade. But are these finding the true facts in the case? Absolutely not! Why is this? The average pediatrician looks upon gallbladder disease in childhood as an unusual occurrence, and rarely makes mention of its possibility as a concomitant factor in the digestive upsets which he routinely encounters among children. If he is led, by the severity of the attack, to make a more careful examination, his diagnostic finger is usually pointed at the appendix as the causative factor. This statement is not an idle vamping based upon inexperience but represents a conclusion forced by actual experiences covering a long and varied surgical practice and backed by hundreds of visualizations of the gallbladder.

In the irregular digestive upsets in children following holidays and seasons of feasting, the gallbladder should always be held in question. If one finds in such

patients a lesioned area at or near the seventh thoracic vertebra, associated with pain or tenderness on pressure and muscular contractions on the right of the spine extending down to the tenth or eleventh thoracic vertebra, he should immediately suspect the gallbladder. This tentative diagnosis becomes almost a certainty if, in association with this, one finds tenderness with muscular rigidity under the right costal arch. Nausea and vomiting are usually present, oftentimes in association with a low fever. Years ago such a clinical picture was dubbed a "bilious diathesis."

In practically all children with such conditions whom I have had the opportunity to observe, I have found invariably a lesion at or near the seventh thoracic vertebra in association with pain or tenderness and heavy muscular contractions on the right extending oftentimes to the eleventh or twelfth thoracic vertebra.

The age of incidence in a large number of these cases lies in the first half of the first decade. Here, then, is where the responsibility of the pediatrician begins with respect to cholecystopathies which are climaxed in the fourth, fifth, and sixth decades by surgical intervention.

Research from the standpoint of the osteopathic concept of the lesion is needed along all lines, but especially so in these very common conditions now dominated by the influence of surgical thought and which, it is becoming more and more apparent, is not the last word in their therapy. The concept of the

lesion being based on natural law—i.e., the law of cause and effect—the only outcome of unbiased investigation will be the expansion of its influence and the illumination and solution of these clinical problems initiated by some so-called "hidden cause."

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