

THE RATIONAL TREATMENT OF VISCERAL PTOSES.

BY J. MADISON TAYLOR, A.M., M.D.

PHILADELPHIA.

IN this paper are offered briefly a few facts and opinions with a *résumé* of my own experience in the treatment of the visceral ptoses. It may serve as a foreword for a later and fuller presentation of the subject.

A review of the literature tempts me to bring together significant points in primary causation and later relationships of visceral ptoses to developmental defects and their bearings upon a large array of fundamental derangements of childhood and later life. Curability depends on a true appreciation of the kind and quality of the starting points. The central defects lie in structural peculiarities of the embryo carried on through the period of infancy and childhood, aggravated by reactions due to functional derangements, and later by traumata, strains, and the unwholesome effects of what may be regarded as inevitable conditions and reactions.

Protracted exhaustive states, especially where these depend, as is usual, upon inherent weakness or developmental errors, are aggravated by functional disorders. A host of disabling maladies are either the result of these common ætiological factors or are reactionary to them. The purpose of the clinician should be to aim at perfection, not to be content with mere correction of derangements. The subject under discussion is an illustrative instance to emphasise the principle,

so often enunciated by me, that we should reach back in our efforts to the original defect, the correction of which conserves constitutional depravity from its earliest divergence, and we should amplify the inherent organic resources to the uttermost.

A study of recorded facts shows that in early life a tendency is often exhibited to various visceral ptoses. J. A. Abt (*The Journal of the American Medical Association*, April 27, 1901) cites a number of authorities (Jules Comby, Steiner, Abraham Jacobi, W. R. Stewart, Richard Frey, Senator, Glenard, Walkow and Delitzsin, Ebstein and Dietl) to show that in the ætiology of movable kidneys in children we must look to a congenital origin, predisposition, emphasised later by traumata. Also that the proportion in the sexes is the same as in older persons, overwhelming in favour of girls.

Hemmeter (*International Medical Magazine*, March, 1902) claims with Rosengart, Langenhans, and Küttner to favour the congenital view of ætiology. He says Landau and Kusster deny this. His co-operation with the anatomist, Professor J. Holmes Smith, in a study of the viscera of infants, predisposes him to favour the theory of Rosengart, that enteroptosis is a pathologic reversion of the location of the abdominal organs to an embryonic state (*Zeitschrift für diätetische und physische Therapie*, i.).

Fenton B. Turck, in an article on enteroptosis (*International Medical Magazine*, March, 1902), presents a *résumé* of views on ætiology, quoting twenty-four authors, all showing the tendency to fix the primary fault upon congenital defects. Meinert (*Volkmann's Sammlungen*, Nos. 115 *et seq.*), says: "In the course of time through inheritance, deformity of the chest and visceral ptoses may become a peculiarity of the race." Stiller (*Archiv. für Verdauungskunde*, 1896, says: "The symptoms of enteroptosis are not due, in the main, to anatomical displacements of the individual." Rosengart

(*Zeitschrift für dietetische und physische Therapie*, i.), refers to the fact that the foetal position of the abdominal viscera remains the same throughout life. Failure of these to change to the positions of the adult may be considered a cause of ptoses in most cases. Kussmaul (*Volkmann's Sammlungen*, No. 181) thinks there is no doubt but that in visceral ptoses there is a reversion back to the embryologic state, secondary not primary.

E. M. Corner (*International Clinics*, ii., 1905) has shown that herniæ in children are due to two great factors, congenital malformation and gastro-intestinal fermentation. These seem to share a common etiologic factor with the visceral ptoses.

W. B. de Garmo (*Medical Record*, February 13, 1904) states that the principal predisposing cause of hernia in infants is defective development. Harris's contention (*Transactions of the American Surgical Association*, 1901, p. 457) that the cause of movable kidney is a peculiar body form, diminution in capacity, vital depression, and a constricted outlet of zones formed above the centre of the organ, hence concentrated motor acts crowd it down by compressor action of the lower ribs, gives strength to the view that we have to do with a vitiated organism. Stumdorf (*Medical Record*, January 13, 1906) maintains that "Dislocated kidneys will invariably be found associated with characteristic skeletal stigmata; thus the possessor of a prolapsed kidney probably had club foot or has acquired flat foot, shows a tendency to or aggravation of existing herniæ, spinal curvatures, proneness to articular disorders, dislocations and fractures, uterine and ovarian displacements, and prolapse without apparent intrinsic cause."

Pathologic causes of movable kidney include factors that bring about increase in the weight of the kidney, such as sarcoma, carcinoma, hydronephrosis, a large calculus, or aneurysm of the renal artery, especially if associated with a

false renal hæmatoma, causing an unusual tugging at the not over-strong fibrous support of the kidney (Penn Gaskell Skillern, *American Medicine*, March 17, 1906). In view of the many similar testimonies to the potency of early constitutional causes it seems idle to multiply surmises as to the instrumental causes. Almost any kind and degree of trauma or functional derangement may induce visceral ptoses in one so predisposed.

All this is cited, and much more could be offered, to show that we should not fail to start at the beginning, the *fons et origo mali*, and not waste time in correcting only obvious derangements. Childhood is the time to initiate measures whenever possible. Closer observation then would prevent much after damage.

The problem in treatment is to rectify at the point of origin, to readjust the visceral displacements by repairing the central defect. After this has been done, if there then remains notable local defects, such as profound dilatation, or sagging of an organ, or supporting structure, it is time enough to interfere surgically or to employ the habitual use of mechanical supports, corsets, pads, belts, &c.

We owe gratitude to the surgeons for many important observations, efficacious procedures, life-saving operations. So heartily and frankly do we testify to this truth that they are inclined to plume themselves as being especially ordained to assume responsibility in a large, increasing part of those fields which we have felt to be rightly our own. It is true, we internists have repeatedly failed to accurately recognise, estimate, or cure, conditions which are made plain enough when the obscuring skin and overlying tissues are removed. It does not follow that we shall fail in the majority of difficult conditions because most of these are altogether beyond the scope of surgical mechanics. To be sure, it is a commendable, a practical measure, to boldly snatch away the overshadowing structures and seize the dubious portion in the

hand and, if offending, cast it away. "Mr. Punch, what would you do if the man was too long for his coffin?" "Double him up, sir." This achieves economy of space and time, but is not to be always recommended, for excellent reasons.

In the treatment of those disorders, many of them painful and disabling, resulting from loss of tone in the supporting structures of important organs, we see far more in literature nowadays of surgical procedures. Ventral-fixation of the uterus, stitching of the kidney, snipping out portions of the hollow viscera which have become prolapsed or dilated, also various devices, almost purely mechanical, to make old bottles parade as fit to contain new wine, are reported daily. Little is said of repairing these tissues, living but flaccid, asthenic from central constitutional defect and reinforcing those directly at fault. It is true, general measures are advised, tonics, rest, change of scene, even *massage* and general exercises, but not specifically or in sufficient detail. It was my privilege to have my attention directed to the ptoses a quarter century ago and the paramount efficacy of restoring the elasticity, vigour, and function of the adynamic structures of the torso. Each year has revealed better methods of accomplishing this. Those who come later will be equally or more fortunate, until it is reasonable to expect, we shall be fully able to cope with most of these problems without recourse to the knife. Unfortunately the case records of slow, steady educational treatment make monotonous reading compared with the graphic, tangible accounts of new and clever surgical procedures, illuminated by all the modern resources of illustration.

Let us bring before our consciousness the indubitable fact too often lost sight of, that all operative invasion of the abdominal parietes is a serious matter, not only directly, but remotely. It will be admitted by most surgeons themselves that it is always desirable to avoid operation if equal results can be secured by rehabilitating the inherent forces. My

opinion, based upon a long and full experience, is positive that displacements and ptoses of the viscera can, in nearly all instances, be restored. Along with this also marked increments in vigour are attained by the means employed, to say nothing of the retro-active benefits, which directly follow.

Glenard, to whom we own most for directing our attention to the ptoses, has recently (*Bulletin de l'Académie de Médecine*, Paris, lxx., Nos. 5 and 6) describes phrenoptosis or downward displacement of the diaphragm, which he shows, is responsible for cardioptosis. There is, in some, a general tendency to ptoses, of which movable heart is an episode. Enteroptosis is due to nutritional faults of hepatic origin. The same causes which induce liver affections preside over their origin. The malady, he says, is the product of five morbid groups; dyspepsias, neuropathies, liver disorders, nutritional disorders, and a fifth group which includes movable kidneys, movable liver, over-movable spleen, and uterus. He regards enteroptosis as the cause of one-third of all the dyspepsias and neuropathies in women, in whom 80 per cent. of all these conditions are found. He believes them to be readily curable if properly recognised and treated, but if not they induce much trouble. His method is to apply a sustaining corset.

H. P. Hawkins (*British Medical Journal*, January 13, 1906) calls attention to "Enterospasm and its mimicry of appendicitis." He finds pressure will sometimes relieve in slight cases. I have repeatedly demonstrated that pressure over or near the lower dorsal and upper lumbar vertebræ will promptly relieve various forms of colic, some cases so intense as to have lasted for months. The use of continued finger pressure often cures in a few days.

Delbet (*La Semaine Médicale*, Paris, xxv., No. 47) describes a number of patients complaining of disturbances in the region of the appendix in whom the trouble proved to be ptoses of the cæcum only. In them the appendix had been removed,

but the disturbances persisted. The trouble is essentially generalised paresis of the intestines.

H. A. MacCallum (*British Medical Journal*, February 18, 1905) makes some wise remarks on the treatment of the viscerotoses emphasising the value of systematic repair. He says : "Massage helps the patient to get control of the lower neurones and of the upper neurones."

I am struck with the elaborateness of surmises, theories, apparently logical conclusions as to many points in the literature with singularly inexact recommendations as to treatment. Particularly lacking in definiteness is the reference to the kind, quality, and amount of regulated movements and massage.

The etiologic factors, underlying the visceral ptosis, particularly dilatation and motor insufficiency, depend in large part on lessened vaso-constrictor tone. From this there follows passive congestion of the organs affected and the adjacent structures. These phenomena lead to infiltration in the structures of the organs and those concerned in their support. A loss of visceromotor tone is thus induced, which leads to relaxation of the viscus or viscera, and this, again, is accompanied by a corresponding relaxation of the ligaments and tissues which afford normal support. For example, in gastropsis there are nutritive derangements in that portion of the cord adjacent to the region from the fourth to the ninth dorsal vertebræ. In this region are placed the cell bodies which control the visceromotor and vaso-constrictor activities of the stomach and its supporting structures. So also of the other viscera, according to the distribution from their visceromotor and vaso-constrictor subsidiary centres. If these centres in the corresponding portions of the cord be insufficiently supplied with normal blood, it transpires that those cell bodies are relatively starved and become thereby incapable of performing their normal functions. This is equally true of those

tissues concerned in support, such as the abdominal muscles. These conditions of nutritive depravity lead inevitably to losses of tone in the muscular coats of the affected viscus, hence dilatation ensues. Consequent upon the loss of vasoconstrictor powers, there follows passive congestion in the coats of the visceral blood-vessels, deficient nutrition of the parenchyma of the viscus of the adjacent parts, relaxation of supporting structures, hence ptoses or dropping down of that particular organ most affected. Similarly of other organs than the stomach other centres are thus affected.

Ptoses, displacements of viscera usually downward, cut a large figure in causing or contributing to a number of ailments, not only in adults, but in the young. Along with these sometimes occur dilatations, contractions, stenoses of the same, or adjoining structures. Light is being shed on these of late, due probably more to the exact observations of surgeons in their now frequent explorations than to that of internists. Certainly many of these conditions escape attention of the physician who ought to know the symptoms, or at least keep them more fully in mind. The phenomena are, it is true, usually vague and only to be determined in connection with other data, but the real reason they escape detection is that frequent omission of thoroughness we all commit, if we fail to strip the patient and examine manually. It seems to me almost an axiom that our full duty by a patient is not discharged until we have manipulated and estimated the character and condition of the tissues, certainly of the abdominal viscera.

Among the most influential factors in aggravating the ptoses are dyspepsias, intestinal fermentations, and putrefactions. These must be modified promptly and persistently. In achieving this we can only mention measures. First in importance is to acquire the habit of chewing thoroughly, achieving a complete mastication and insalivation. The rules

of Horace Fletcher should be observed, viz., to reduce the food to a cream and permit it to be swallowed only when it can no longer be retained in the mouth; to take no fluid while food is in the mouth; to take no more food in the mouth till one bolus be disposed of. Thus, a normality of taste will be acquired and selection becomes normal, choice be unconsciously wiser, less variety will be needed, less pungent articles desired, in short, a greater simplicity and sanity of taste. Certain articles are found to ferment, e.g., sugars. They are not objectionable if retained in the mouth till the action of saliva changes their chemistry. Over much proteids should be avoided. Metchnikoff demonstrates that the action of the *Bacillus lactis* neutralises putrefaction, hence clean acid milk, buttermilk, keffir, youghort, bonny clabber, &c., is of much value, the use of which limits the practically inevitable intestinal putrefactions. My experience fully sustains his contention.

Of medicines, alkalies before meals are proverbially valuable, especially one dose at bedtime, if gastric acidity be a feature; so a dose of sodium phosphate on waking, for a week or more at a time; occasionally calomel in small repeated doses is magical, the best "intestinal antiseptic"; also now and then a thorough cleansing by castor oil. After or between meals a half ounce of lime-water acts happily for overcoming eructations. The more physiologic use of hydrochloric acid is sometimes best, taken in two doses, one in the middle of the meal, the second at the end, to meet the "acid tide."

In the ptoses we have to do with a general disorder, hence all operations are of only the most incomplete advantage.

The most potent agent in overcoming the anatomical defects of the ptoses is to so tone up the muscles of the torso that they shall not only re-acquire their aforesaid vigour, but become developed toward perfection. They should be made

to reach the highest grade of efficiency which the inherent resources of the individual is capable of attaining. They should become not only what they were, at their best, but as good as they can be made. No muscles in the human body are so neglected as those of the diaphragm, of the external abdominal muscles, and those involved in respiration. Systematic breathing exercises, even though they be clumsily and partially employed, produce gratifying results. When these are consistently taught, and faithfully practised, this measure alone will establish a degree of invigoration of the whole economy which will satisfy the most exacting. The patient should first learn to draw the abdomen forcefully and deliberately inward and upward, next to combine this forceful indrawing of the abdomen with the act of expiration. This, again, should be combined with other simple muscle tensions, such as flexion and extensions of the wrist, of the ankle, of the shoulder, girdle, &c. All acts should be a complex of respiratory, especially expiratory, emphasis plus a simple extension or flexion of a limb, or portion of a limb.* Along with this should be practised elasticising of the flexures, the joints, especially the hips, the pelvis, the scapular muscles, and torsion movements, rotation, &c.

In diagnosis of enteroptosis the older methods of inspection, palpation, auscultation, auscultatory percussion, are inaccurate; those by artificial distention with gas, transillumination, electro-diaphane, gyromele, &c., are relatively unsafe. The most accurate, perhaps the only really exact method, is Röntgenography. Hulst's method of taking two views, one the patient lying on the stomach, and a second one in the standing or sitting position, gives the best results so far.†

* Recently, a most clever method of physical education is being taught by Mr. Allen Lester Fowler, which combines an expiratory effort along with simple tensions. This has already effected some excellent results for me.

† See *Transactions American Röntgen Ray Society*, 1905.

A large number of distressing and disabling symptoms are recognised as proceeding from the ptoses, some of which are stated correctly and others overdrawn. The general practitioner has need to keep these in mind and learn with all the exactness possible. Not only do we need to know the position, range, &c., of the organs, but we wish to estimate their motor efficiency. This can be done by permitting bismuth to remain in the stomach, and to observe when it becomes emptied. This, according to Boas, is accomplished of the food in five or seven hours, so Hults finds it with bismuth.* If it takes longer than that, insufficiency is shown. When it has reached the colon we secure additional important information on motor power.

Two factors enter into this problem always: (1) The degree of constitutional weakness, inherited or acquired; and (2) of the organic derangement. Often there are no sensory phenomena, so long, at least, as the general condition of the patient remains good (H. A. MacCallum, *British Medical Journal*, February 18, 1905). A large and various train of symptoms, ordinarily referred to as functional derangements, may give direct evidence of the form of tissue laxity, with secondary disorders which arise in, or are fused with, organic ptoses. The patient is most comfortable lying down, is miserable, depressed, weary, unable to think or form decisions, has dragging sensations, the digestion is poor, the stomach burns, he may vomit without relief, has no appetite, there occurs bloating, eructations, coated tongue will persist, irregularity of bowels, colic, epigastric or other tendernesses. The abdominal wall is usually flabby, readily manipulated and palpated. Specific symptoms are usually evidences of the acute involvement of some particular organ.

Symptoms due to prolapsed kidney are characterised by:

* *Op. cit.*

(a) Their acuteness ; (b) frequent recurrence ; and (c) rapid subsidence after the kidney is replaced (A. Ernest Gallant, *New York Medical Journal*, April 29, 1905). Dietl's crises can be recognised by any one ; they come on without warning, with severe headache, nausea, vomiting, pain and unilateral swelling along the loin, or a general abdominal swelling, a sense of suffocation, an irresistible desire to loosen or remove all clothing and to lie down, followed in a short time by relief and freedom from pain.

Hydronephrosis is manifested by retention of urine soon after rising, along with rapidly increasing soreness and distension along the back and loin becoming "maddening," need to loosen clothing and lie down. On getting up again there is frequently imperative or continuous urination. Nausea is not common, and the attacks become less frequent. Jaundice, due to traction of prolapsed kidney on the cystic or common duct (Treves) occurs in those of lax, flabby bellies, coming on suddenly with pain.

Obviously posture will relieve many of these discomforts, but is only palliative, or if partly curative, is a tedious and objectionable form of therapeutics. Equally apparent is it that if the abdominal walls and adjacent supporting structures of the torso were of normal strength and tonic elasticity these phenomena would probably not arise at all, and would certainly soon cease to distress. To tie one organ up may relieve, but others are sympathetically affected and any may slip down, and the repair is at best but incomplete.

In my own considerable experience with all sorts of neurasthenics, I have had abundant occasions to verify my beliefs as to the frequency of the ptoses, obvious or latent. As to the treatment of the ptoses, it consists of repair of the underlying structural defects. These begin, and by no means end, in defects in the amounts and qualities of the nervous force possessed by the individual. The proper measures are

plainly to re-establish the balance of nerve force, the inherent vigour, and proceed to increase this later by developmental measures, whereby the patient often achieves unexpected general betterment. The local disorders disappear for good and all; they cannot return except by a return of general constitutional depravity. The measures employed are general rest, isolation, nutritive enhancement, &c. (see article by the author, "Rest Treatment," *International Clinics*, ii., 1901).

Posture is important, genupectoral position, the inclined bed, perhaps, for a time, especially manipulations on the tissues of the back, which certainly does enhance visceromotor tone reflexly through the segmental centres, massage of the abdomen, intelligently directed or applied by the physician himself; above all, specific, definitely directed voluntary movements, educative in character, of respiration, thoracic action, and especially of the abdominal muscles. These are best combined with simple tensions of groups of muscles along with forceful abdominal breathing, and finally general educational movements adapted to the special needs of the case, not the haphazard long-range employment of professionals. The after-cure may well be moderate athleticism, golf, rowing, canoeing, bowling, croquet, &c., &c.

It is true we may need temporarily the help of belts or of peculiar corsets. The best one, in my experience, is that devised by Morris Longstreth, by which he claims to cure a multitude of ailments not apparently consequential. This consists of a wide belt of strong saddle girthing attached to the corset, which must fit well down two inches or more below the external trochanters, and be adjusted so that the pressure is upward and inward. No peroneal bands are required. It should be, of course, applied or fastened while in the dorsal decubitus. A woman of good motor intelligence (very different from psychic intelligence) can learn to drag her abdominal contents upward while standing, and then

adjust the corset. For men the belt can be used alone. After some months of suitable exercises, when the abdominal muscles have acquired full vigour, these devices can be discarded.

The efficiency of massage will be admitted by any who will allow themselves to judge fairly of the facts. So few physicians know anything about it of their own knowledge, or can judge of its quality by personal experience, that to them it evidences only a partial utility. Some actually condemn it because of discouraging instances. Much of this dissatisfaction is because they will not themselves acquire the art and apply it.

For myself, manipulations have enabled me to get results otherwise unobtainable. Applied by the physician himself, in the ptoses, it takes only a few minutes and no great effort : not a bit more of either than many specialists devote constantly to minor procedures on eye, ear, throat and skin. A few hints may help any to learn to use the dorsal manipulations. In five minutes all can be performed necessary to secure reactions. The degree of pressure on the lumbar region need never be over two or three pounds, alternating and distributed pressures. Follow these by lifting movements applied to the abdominal organs, first out of the right iliac fossa toward the umbilicus ; next the same in the left iliac fossa, lifting up and out of the pelvis the sigmoid flexure and other structures by a few slow tractions toward the same point ; finally, from the left side, with the left hand, push the contents of the abdomen from the symphysis pubis toward the thorax several times. Total time consumed is about four or five minutes. These procedures, repeated two or three times a week, will effect much, equal or more, than by professional massage, which, though excellent, is too often needlessly exuberant. An office nurse is useful to do all this, but, unless one is constantly busy with one line of cases, unnecessary.