If an extensive loop of small intestine be involved in a strangulation, there is no doubt that that loop is itself the seat of violent movements, which may almost be viewed in the light of a frantic struggle in the bowel to be free. Experiment has shown that a diminution in the oxygen of the blood going to the intestine, and an increase in its carbonic acid, induce inordinate peristaltic movements, and that such movements are also induced by mechanical irritation of the serous coat of the bowel. In strangulation, these conditions are present; and much of the severe colicky pain noted early in strangulation of a large loop of small intestine is probably due to movements in the involved coil itself rather in the bowel above it.

The pain depending upon disordered peristalsis is more severe in cases in which the small intestine is involved, owing to the greater muscular development of that part of the bowel as compared with the colon, and on account also of the greater activity of the small intestine and its superior nerve-supply. Other things being equal, it is perhaps on the whole more severe in examples of chronic obstruction than in those of an acute character. In the chronic forms, the gut above the stenosis has become greatly hypertrophied, its walls are probably congested, possibly inflamed, and ulceration of its mucous membrane is more often present than absent. This is the form of pain that is induced by the taking of food, and often by the administration of enemata. I have met with some recorded cases of obstruction in the small intestine, where severe colic was brought on by a digital examination of the rectum. In such examples, one has to deal merely with peristalsis due to reflex action.

Pain due to disordered peristaltic movements, as met with in a case of simple colic, is essentially of an intermittent or paroxysmal character. In examples of obstruction, this feature may not be so marked. There are other causes producing pain, and the actual suffering experienced by the patient is to be regarded as the resultant of several forms of painful sensation.

In the diagnosis, however, of intestinal obstruction, I would point out that a very important distinction may be observed with reference to the character of the pain. When the obstruction in the bowel is complete, the pain experienced is constant, with periodic exacerbations. When the obstruction is incomplete, the pain is intermittent, and there are intervals of freedom from pain, of varying duration. Thus, in acute strangulation of the intestine, the suffering is continuous, the patient is never free from pain, although he has from time to time an increase in that pain. In stricture, on the other hand—taking as an example stricture of the small intestine—the pain is intermittent. At the commencement of the case, the patient has only an occasional attack of pain. He may be entirely free from suffering for days, and even weeks. Now, as the obstruction advances, the painful attacks are of longer duration, while the intervals of freedom diminish. Finally, if the occlusion become complete, the pain becomes continuous, with periodic exacerbations. In intussusception, again, the suffering complained of has at first an intermittent character, for the lumen of the bowel is only partly occluded. When, however, that occlusion is complete, the pain becomes continuous, with exacerbations. Out of fifty examples of strangulation by bands in which the occlusion was presumed to be complete, I find only eight instances of intermittent pain. In several of these exceptions, however—which are fully detailed in my Jacksonian prize essay—there were peculiar circumstances that may have modified the nature of the pain.

With the pain that depends upon disordered peristalsis, there is associated at times some tenderness. This tenderness may depend upon changes in the intestine, or may be of the same kind as that experienced after cramp in the superficial muscles. The pain itself is essentially a cramp in the intestinal muscle.

3 and 4. With regard to the pain due to distension and to inflammatory changes, space will not permit me to deal save in the briefest manner. The pain from distension is continuous, and is very diffused. It is associated with tenderness on pressure, which may, however, be quite insignificant. It is more marked in cases of obstruction of the colon than in like cases in the small intestine. The most severe degree of distension, and that most rapidly developed, is met with in acute volvulus of the sigmoid flexure. In several of the reported cases of this variety of occlusion, the diaphragm has been pushed up by the distended intestine, the heart has been much displaced, the functions of the thoracic viscera have been seriously interfered with, and the involved loop of bowel has become rapidly gangrenous as a result of the distension. It is needless to point out that the degree of the distension depends upon many conditions—upon the site and completeness of the obstruction, upon the extent of the vomiting, upon the nature of the intestinal contents, and upon the association with peritonitis. In the pain due to inflammatory changes in the bowel or peritoneum, there

is, as a feature almost more conspicuous than the pain, a marked degree of tenderness. When the morbid changes are still limited in extent, this tenderness is localised, and the symptom has considerable diagnostic value. In connection with this point, it must be borne in mind that the only peritonitis found in a case of fatal obstruction may be at some distance from the occlusion itself. For example, in a case of stricture of the sigmoid flexure, the distension of the colon above the stenosis will probably be most felt at the caput coli. The mucous membrane of the cæcum may become ulcerated, the walls of the bowel may inflame, and a local peritonitis be induced, that is separated from the seat of actual disease by the length of the large intestine. In all cases, the pain and the tenderness tend in time to become diffused over the whole of the abdomen.

PROLAPSE OF THE PELVIC FLOOR WITHOUT RELATIVE DISPLACEMENT OF THE UTERUS.¹

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In the systematic description of the alterations in the mechanical relations of the pelvic viscera in women, the chief place is usually given to the flexions and versions of the uterus. Both those who think uterine flexions and versions in themselves important, and those who do not, agree in the observation that these so-called displacements, when met with in patients who seek for treatment, are generally accompanied with more or less prolapse, and admit also that prolapse of the pelvic viscera causes some amount of discomfort to the subject of it.

The chief difference between those who accept what is called "the mechanical system of uterine pathology," and those who reject it, is, that the former regard the amount of bending of the uterus, or the kind and degree of its inclination, as the essential elements of the case, the conditions which cause the symptoms, and the rectification of which must be the chief aim of treatment. The latter, with whom I am in agreement, consider the shape and position of the uterus as only a part, and generally an unimportant part, of the clinical phenomena.

It is so obvious as not to need demonstration, that descent of the uterus cannot take place by itself. There must also be change in the parts which support the uterus, and in those with which it is connected. The uterus rests upon the structures which form the floor of the pelvis, and have been called, when regarded as a whole, the "pelvic diaphragm." No excuse is needed for clinically speaking of the pelvic floor as a whole, for we cannot during life dissect it, split it up into its component parts, and ascertain which is the one most effective in maintaining its proper mechanical relations. Prolapse of the uterus cannot take place without some alteration in the pelvic "diaphragm." But we may have yielding of the pelvic floor without any relative alteration in the position of the uterus; and this is what I wish to point out in the present communication. Cases of the kind, although they may be practically familiar to many, have as yet, so far as I can find, never been described in such a manner as that they can be clinically identified.

These patients come either saying that "the womb is coming down," or that "something is coming down," or complaining more vaguely of "bearing-down" pain. On digital examination, we find the uterus in its normal position—that is, in, or nearly in, the axis of the pelvic inlet. Its body cannot be felt through the anterior vaginal wall, nor through the posterior. It is neither retroflexed nor anteverted. It is movable, and its cavity is of normal length. The vagina is not unusually relaxed, nor does its orifice appear unduly large. On inspection, when the patient is lying quietly on her side, we see the perineum as usual, forming the bottom of a groove between the two convex eminences of the buttocks; ascending slightly during inspiration, and descending to an equal extent during expiration. If, now, the patient be told to strain, to bear down, as strongly as she can, we see the perineum bulge downwards, forming, instead of the bottom of a groove, a third convex swelling between the two lateral ones of the buttocks. The position of the uterus during this effort is, relatively to the pelvic floor, unaltered. It descends, of course, with the pelvic floor, but neither uterus nor vagina undergo any other appreciable change in their relative position. The morbid condition present is simply abnormal yielding of the pelvic floor, without relative alteration of its parts.

¹ Read before the East London and South Essex District of the Metropolitan Counties Branch.

The state of things described, is obvious to the eye. Of course, if it be thought of, and attention be paid to the matter, the amount of descent can be noticed just as well by the hand; but it is more striking when observed by the eye.

In order to be precise, and to avoid error in the estimation of this yielding, I have made a large number of measurements, which I hope hereafter to collectively examine, and draw from them such conclusions as they warrant. For the present I only use them as a means of precisely expressing what can be easily observed, though not defined, without them.

I have measured, with a tape or bit of string, the distance, following the curve of the soft parts, from the coccyx or sacrum to the pubes. This measurement has been taken from the lower border of the symphysis either to the tip of the coccyx, or to the lowest sacral spine that could be conveniently felt under the skin. The tip of the coccyx can be felt through the skin much more easily in some subjects than in others, the differences depending on the degree of incurvation of the bone, and the fatness of the patient. Often it is difficult to feel it plainly enough to make it a point to be measured from, and when it lies deeply the pressure necessary to get at it causes pain, and tends to alter the amount of descent. For these reasons, when the tip of the coccyx could not be easily felt, I have measured from a higher, more superficial, and more clearly felt point. When this measurement had been made, the patient was told to bear down to the utmost of her power, and the distance between the same points, during the height of this effort, measured. As the object of the measurement is only to define the difference between the condition during rest and that during effort, it is immaterial whether the measurement be made from the tip of the coccyx or from a coccygeal or sacral spine, so that the two measurements are taken from the same point. In order to be sure that I was not mistaking a normal for a pathological condition, I have made the same measurements also in virgins, nulliparous women, and women not complaining of any symptoms referable to prolapse.

The measurements vary, as might be expected, in different women, according to the point of the sacrum or coccyx measured from; and if the same points were always chosen, the absolute measurements would still vary, according to the size of the pelvis and the degree of incurvation of the coccyx. An average measurement, taken in the manner described, would be about four inches. When the patient strains, the bulging downwards of the perineum increases this, in the virgin, by seldom more than half an inch. But in the cases which it is the object of the present communication to describe, the distance may be increased by as much as two inches or more, showing an amount of stretching and yielding of the pelvic floor which does not occur when the parts are in a healthy state.

This condition is present in its greatest perfection immediately after labour, when the parts have been subject to recent and great stretching. If the process of puerperal involution, and repair of parturient injuries, go on properly, the parts regain their natural tonicity, and the effect of the stretching during labour is made good. I suspect, although I have not made special observations bearing on this point, that in any patient abnormal descent such as I have described will be found present for about three or four weeks after parturition. At this time it would merely indicate incompleteness of the process of puerperal involution and reparation; and would call for no further treatment than simply telling the patient not to undertake great or prolonged exertion too soon. It is only when it is observed in the nullipara, or at a time too remote from parturition for the condition to be justly regarded as a part of the natural puerperal state, that it can be considered morbid. It may be met with months, or even years, after childbearing. Uncomplicated cases of the kind are more frequently met with a few months only after parturition; for the reason, I believe, that such yielding of the pelvic floor, although at first simple, tends in time to become complicated with manifest prolapse of the vagina and uterus. It is met with also in nulliparae, although not often. In them it is associated with relaxation of the muscular tone generally, and the symptoms it occasions will be found to vary with the general health, being absent when this is better than usual, present when the patient is depressed or tired. Such variations in the extent of the patient's complaints depend, I imagine, on the tone of the sensory, as well as of the muscular system, the patient being more susceptible to the influence of slight local unpleasant sensations when in feeble than when in vigorous health.

The symptoms are few and simple. The patient complains of aching, dragging sensations, felt, as a rule, in the back and lower abdomen and down the thighs. Like many other pains,¹ it is often

described as being worse on the left side, mainly for the reason, as I believe, that the left side is weaker in resisting painful impressions, as well as weaker in motor power, than the right. The patient will sometimes say that her "womb is coming down," or that "something is coming down;" and, if pressed to describe her pain, will say that it feels as if something were sinking from her. The essential feature of the pain is this, that it is entirely removed by lying down. For diagnosis, this is of cardinal importance. Pains of many kinds are lessened or removed by recumbency; and, therefore, if in a particular case this is so, the inference does not follow that the pain is due to yielding of the pelvic floor. But, if the pain be not removed by lying down, it cannot be entirely due to prolapse, and no form of mechanical treatment will be alone enough to cure it. This kind of pain is the chief and least variable symptom. It is made worse by exertion, and therefore by walking. It is also aggravated by the act of defecation, in consequence of the straining which accompanies that function. It is often associated with constipation—a condition which contributes to produce and maintain it. A costive habit implies large and hard scybala, which require much straining to expel them; and such straining means increase of pressure on the pelvic floor, which helps to weaken it. There is often, but by no means always, irritability of the bladder. The conditions which make the pelvic floor prone to yield—childbearing, debility, constipation—are those which also favour leucorrhoea, which is therefore often, but not always, present. The symptoms are usually increased at the menstrual period, in consequence of the congestion of the pelvic organs which attends the catamenial function; but, except for this slight aggravation of symptoms already present, menstruation is unaffected.

This assemblage of symptoms deserves notice and description, because it requires to be treated, and can be completely relieved by proper treatment. The treatment required is support to the perineum. Vaginal pessaries are in these cases useless, because all that a vaginal pessary can do is to keep the vagina extended. It is in cases in which there is descent of the uterus, with inversion of the upper part of the vagina; cases in which, when we examine, we find that on straining, the uterus not merely descends with the pelvic floor, but approaches nearer the vaginal orifice and perineum; or where there is commencing inversion of the lower part of the vagina, so that the wall of this canal protrudes at the vaginal orifice under expulsive effort, that vaginal pessaries, which keep the canal extended, and prevent changes in its form, may be serviceable. But in cases of the kind now under consideration, there is no such condition; when the patient strains, the uterus and vaginal walls preserve the same relation to one another and to the floor of the pelvis, that they had before; and when this is so, no vaginal pessary is required, nor will it do good. Support to the perineum is all that is wanted. The most convenient, and most cleanly way of giving this support, is by an ordinary napkin, very tightly fastened.

These cases seem to me to have a special importance, beside their practical interest, because in them we have the phenomena of prolapse in their beginning, in their slightest and simplest form; and they are, therefore, cases which give us valuable teaching as to the symptoms which prolapse of the pelvic organs does and does not cause. The test, whether symptoms be due to mechanical alterations in the position of the pelvic organs, or not, is that, if they be, they should be immediately relieved by correcting the mechanical anomaly which is assumed to be their cause. In the cases here described, this can be done; and it will be found that, when it is done, the symptoms, which in the foregoing description have been attributed to the yielding of the pelvic floor, are at once and completely relieved. All sorts of other symptoms may coexist; but they are the result of other associated conditions, and will not be set aside by mechanical treatment.

WONFORD HOUSE ASYLUM, EXETER.—The Committee of the Wonford House Hospital for the Insane, Exeter, unanimously passed the following resolution upon Dr. Philipps being appointed Medical Superintendent of the St. Ann's Asylum, Chertsey: "This Committee desires to record its high appreciation of the services rendered to Wonford House Hospital by Dr. Rees Philipps during his tenure of the office of resident medical superintendent. As to his medical capacity, he can with pride refer to the gratifying reports of the Commissioners in Lunacy and Chancery, who are, of course, much better able to judge of qualifications in this respect than this Committee. The financial progress of this hospital, since his appointment, is substantial evidence of his excellent administrative capacity; and the great and continued improvement in the interior of this building, both decorative and material, bears witness to the untiring energy he has shown to attain the object he has had ever in view—namely, the advancement of this hospital so as to 'rank with one of the first in the kingdom'."

¹ See Champneys, "On the Pain of Pelvic Cancer," *Obstet. Trans.*, vol. xxii, p. 10.