CHAPTER X.

UTERINE DISPLACEMENTS.

I.—PROLAPSE.

THE term "uterine displacements" has been used to denote one major, *inversion*, and several minor.

Inversion.—The major displacement is inversion. It is produced either immediately after the delivery of a child, or during the delivery of a fibroid. It threatens life by hæmorrhage. It will be described among the causes of that symptom.

So-called minor displacements.—The minor so-called displacements are anteflexion, anteversion, lateriversion, retroflexion, retroversion, and prolapse. The first three of these are not morbid conditions.

Lateriversion is either normal (for the uterus, like the vomer, is seldom exactly in the middle) or results from the uterus being pulled aside by adhesions, or pushed aside by a swelling. The condition which produces lateriversion may be important, but the unusual place of the uterus is not.

Anteflexion is the natural shape of the uterus in most virgins. The uterus is straight in only about one-fourth of such patients. This normal curve is often straightened out by child-bearing, but not by anything else. It produces no symptoms.*

Anteversion is the usual position of the uterus when the bladder is empty.

Prolapse.—Prolapse causes pain, but does not endanger life. It is important because it is so common. In most cases the position of the uterus is an unimportant effect of the condition which causes the pain; but it is the most palpable physical sign, and therefore the one from which the disease has been named. In retroversion and retroflexion, which are generally effects of prolapse, the displacement is important

* For evidence see papers by the author, "Obst. Trans." vol. xxiii., and *Lancet*, vol. ii., 1884; and by Vedeler, "Arch. für Gyn." Band xxi.

because it may bring about changes in the circulation through the uterus.

The pathology of prolapse.—The essential condition in prolapse is yielding and stretching of the pelvic floor. The uterus rests on the pelvic floor, and sinks when this yields

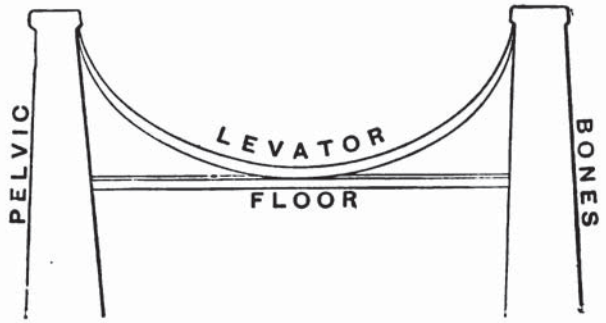

Fig. 18.—Diagram illustrating structure of pelvic floor. (*After Skene.*)

(Fig. 18); a change easily recognised. The muscles and fasciæ, when overstretched, ache; hence the pain.

The causes of the yielding are four—weakness, injury, overstretching, congenital defect.

1. **Weakness**: that is, lowered muscular and nervous tone. Graily Hewitt attributed this to malnutrition from deficient food, and unhealthy modes of life. Overstrain from long hours of work, from frequently repeated child-bearing, from too prolonged lactation, or from anxiety or unhappiness, is as important. This alone, however, only causes slight descent. Hence the slighter forms of prolapse often go with neurasthenia.

2. **Injury in childbirth.**—This injury may be either overstretching during the passage of the child, or tearing of the parts. The fact that prolapse is commoner in women who have had children than in virgins shows that this condition is favoured by child-bearing. It is certain that it is not due to lacerations of the vaginal mucous membrane or of the perineum; for complete rupture of the perineum may exist unrepaired for years without prolapse. It is therefore a reasonable inference that the way in which child-bearing favours prolapse is by causing injury to those structures

in the pelvic floor which are the main supports of the uterus, viz., the pelvic fascia and the levator ani muscle (Figs. 19, 20). But our knowledge of these injuries has not advanced beyond theory. I know of no dissection that has been made to show the existence or the precise extent of such tears.

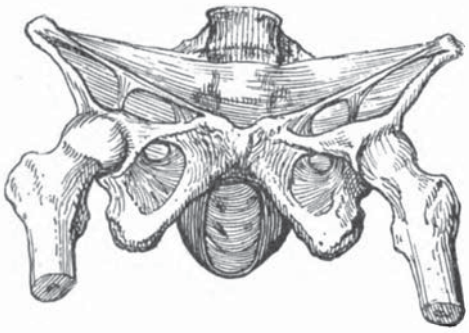

Fig. 19.—Levator ani. (*After Buckmaster.*)

Schatz* has described subcutaneous or rather submucous laceration of the muscles forming the pelvic floor (chiefly the levator ani) occurring during labour. He ascertained these by feeling through the vagina gaps between the muscular bundles. He assumed that these gaps were produced by the tearing through of other bundles which ought to have filled these spaces; but he has not verified the theory

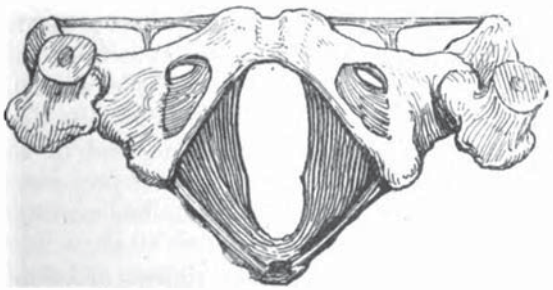

Fig. 20.—Levator ani. (*After Buckmaster.*)

by dissection. I have felt gaps such as Schatz describes between the muscular bundles, but I have failed to trace in patients in whom I felt such gaps a subsequent tendency to prolapse. Skene† has also described subcutaneous or submucous laceration of the pelvic floor during delivery,

* "Arch. für Gyn." Bd. xxii., 1884. S. 298.
† *New York Med. Journal*, March 14th, 1885.

presumably independently, for he does not refer to Schatz's paper, which was published about a year previously. Skene describes not only rupture, but fatty degeneration, atrophy, and paralysis of the torn muscular fibre; but he does not say that he has verified either the ruptures or the degeneration by dissection. He describes a change in the position of the anus as being a result of injury to the pelvic floor; but it does not appear from his paper that he has compared the state of the parts before child-bearing in any particular case with the state after; and without such a comparison it is not possible to be certain that what are described as changes due to injury in childbirth are changes at all. Kelly* has described "relaxation" as "the most important of all injuries" of the perineum and pelvic floor. His description of the injuries is based upon that of Schatz, but contains nothing to indicate that he has verified them by dissection. He says that as a result of these injuries the anal cleft is no longer a sharp deep furrow, but is flat and shallow, and the anus is further back and more exposed. But without knowing what was the condition of the parts in the individual cases before childbirth, it is not possible to be sure that the peculiarities mentioned are really the result of injury. The depth of the anal cleft depends principally on the fatness of the buttocks; and the distance of the anus from the coccyx and pubes respectively is different in different women.

For the reasons given I believe that the fasciæ and muscles of the pelvic floor are often injured in childbirth, and that such injury is the main cause of prolapse, notwithstanding that the fact has not yet been demonstrated by the exhibition of specimens.

3. **Sudden stretching.**—During violent exertion or in a fit, the uterus has been suddenly forced outside the vulva, even in a virgin. The repetition of such an event, or want of proper treatment at the time, may lead to the descent becoming permanent.

4. **Congenital anatomical peculiarities.**—Just as the formation of herniæ is favoured by anatomical peculiarities in the individual, so may that of prolapse. I have seen, in other-

* "American System of Gynecology and Obstetrics"; *art.* "Injuries and Lacerations of the Perineum and Pelvic Floor."

wise healthy young virgins, who had never followed any laborious occupation, the vagina inverted and the whole uterus (together with, in one case, some coils of intestine) outside the vulva. Such a condition can only be explained by a congenital peculiarity.

Pathological relationships.—In their pathology the minor displacements resemble flat-foot, lateral curvature of the spine, and knock-knee. In all these diseases there is yielding of muscular and fibrous structures. The slighter forms depend on debility, and improve as the health improves. In the greater forms the changes are too great to be altered by merely improving the general health. In all, the suffering of the patient depends not upon the amount of local change, but on the state of her health.

The higher degrees of prolapse are like herniæ. In the one the uterus protrudes, in the other the bowel. In a child the hernial orifice may close if a truss is worn long enough. In the slighter forms of uterine descent, if the uterus is supported until the pelvic floor has regained its tone, the patient may be able then to discontinue treatment. But as a large hernia is attended with permanent change at the spot of protrusion, so the changes in the pelvic floor which go with great prolapse are permanent.

The points in which the parallel between uterine displacements and herniæ does not hold good are (1) the production of displacements by mere functional weakness, and (2) their association with nervous symptoms also produced by functional weakness.

Symptoms.—The symptoms directly produced by prolapse are the same in all its varieties. In great prolapse the patient tells you that her womb is down. In the slighter forms she often does not know what is the matter, and only complains of pain.

Prolapse causes aching, dragging, bearing-down pain, felt in the lower part of abdomen and back and down the thighs, especially the left thigh. This pain is worse during menstruation. It is made worse by defæcation, because the straining forces the womb down. The bladder is pulled on and hence irritated, and therefore the patient has to pass urine with annoying frequency. The characteristic feature

of the pain is that it ceases when the patient lies down. If it does not do so, the patient's troubles are not entirely due to prolapse, although it may be part of her ailment.

The association of nervous symptoms with minor displacements.—The slighter degrees of prolapse are often associated with neurasthenia, loss of flesh, and atonic dyspepsia; loss of appetite, discomfort after food, flatulence, constipation. When the patient walks her pain is worse; hence she avoids walking, and may put it that she can't walk. Graily Hewitt called this *uterine dyskinesia.*

The symptoms of neurasthenia are so often associated with minor displacements of the uterus that they have been described as reflex symptoms produced by displacement. They occur with *minor* displacements for these reasons:—(*a*) muscular weakness is a cause of slight, not of great prolapse; (*b*) a patient with neurasthenia will feel pain from a degree of prolapse which would not trouble a strong woman; (*c*) prolapse usually begins between the ages of twenty-five and thirty-five, when women are having children quickly, and when they suffer most from the strain of pregnancy, labour, lactation, and the care of young children. By the time prolapse has become great the patient has generally ceased child-bearing, and her children are old enough to give little trouble; hence nervous exhaustion is less frequent in such patients.

The diagnosis of the slighter forms.—There are degrees of prolapse, and degrees of symptoms, from a case in which the patient only feels a slight bearing-down pain occasionally to one whose pelvic floor aches continually from when she gets up in the morning till she goes to bed at night.

Take the slightest form. A patient has only recently begun to suffer from occasional bearing-down pain, always relieved by lying down. If she has no other symptoms, you may infer the cause of the pain from its characters. It varies with the patient's health—worse if this is from any other cause depressed, better when this is good. Find out if you can anything in the patient's circumstances and mode of life that is unhealthy, and remove it if possible. If she is suckling, let her wean the baby. If she sleeps badly, send her to bed early and see that her night's rest is undisturbed.

Give her tonic medicine, and, if possible, order change of air to a bracing place. Such treatment will remove the symptoms.

Physical examination.—If the symptoms are not occasional only, but constant, probably mechanical support will be needed. You cannot judge as to this without examining the patient.

Begin by examining the abdomen. Palpate it, and you will find the belly is non-resistent. With gradual firm pressure you can press down into the pelvic brim and into the loin, and make sure that there is no tumour or tenderness.

On vaginal examination the uterus is movable. You can push it up or to either side; and when you press up on either side of the uterus, behind it, or in front of it, there is no undue fulness or resistance; nor, unless you press very forcibly, is there tenderness. This excludes pelvic inflammation. The other signs will depend upon the form of prolapse.

Physiological descent.—A certain amount of descent is physiological. With respiration there is a slight ascent and descent of the pelvic floor, and during muscular effort a more considerable descent. The amount of this descent is different in different persons, and in the same person at different times. In prolapse this physiological yielding is increased.

The average increase, under strain, in the projection of the pelvic floor—that is, the measurement of the pelvic floor over the soft parts, from a point low down on the sacrum, or on the coccyx, to the symphysis pubis—is about an inch and a quarter. This takes place in two ways: (1) stretching in the antero-posterior direction; (2) movement backwards and downwards of the posterior segment of the pelvic floor (from coccyx to fourchette); a movement which implies stretching from side to side. The behaviour of the posterior segment of the pelvic floor is like what takes place in labour, but to a less extent, and with the difference that, instead of being pushed down by the fœtal head, it is pushed down by the anterior segment, which in labour is pulled up to make way for the child (Fig. 21).

The average amount of stretching in each direction is nearly equal, being about three-fifths of an inch. With this descent of the pelvic floor there goes descent of the uterus

and shortening of the vagina. This takes place partly by the upper part of the vagina becoming inverted into the part next below it, and partly by the vaginal rugæ being pressed together—*i.e.* by increased wrinkling and actual shortening of the mucous tract. In many women there occurs slight

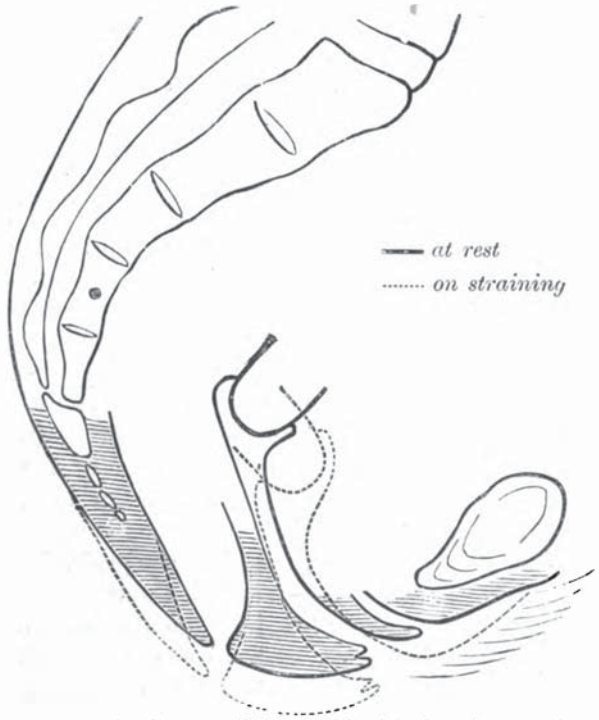

Fig. 21.—Diagram showing normal descent of pelvic floor, descent of uterus, and shortening of vagina during effort. (*Drawn from measurements of a nullipara, aged* 19, *suffering from a small ovarian tumour.*)

inversion of the lower part of the vagina, which thus protrudes slightly when the patient strains; but this is not usual in the nullipara.

The average descent during straining of the anterior vaginal cul-de-sac is about an inch, that of the posterior cul-de-sac rather less. In parous women the amount of inversion is greater. In nulliparæ the posterior cul-de-sac is more shortened during straining than the anterior; in the parous the anterior is more shortened than the posterior.

The uterus as it descends moves in the axis of the pelvis—that is, roughly speaking, in a curve having a centre in or near the symphysis pubis—and by a movement of this kind the posterior cul-de-sac is more shortened than the anterior.

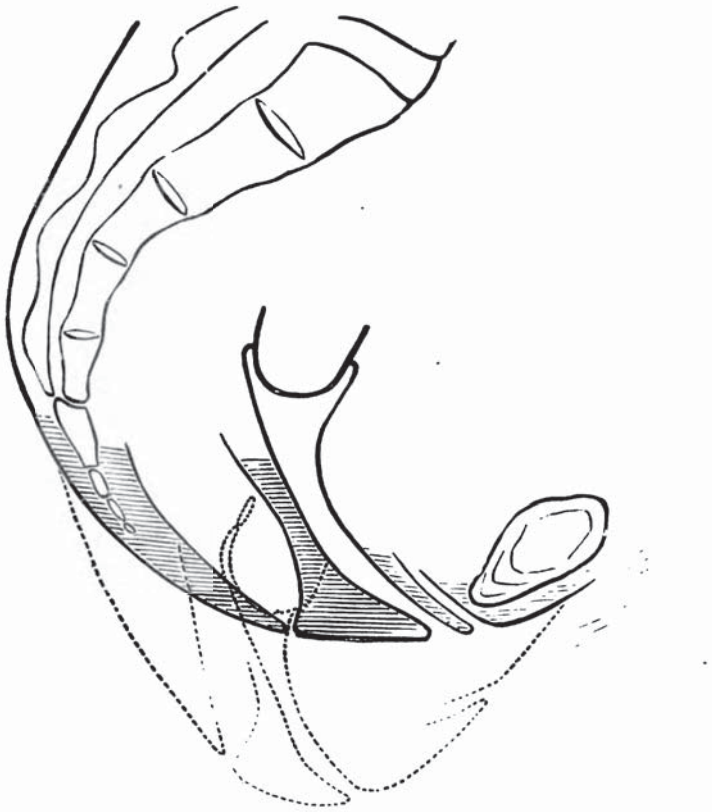

Fig. 22.—Diagram showing descent of the pelvic floor without relative displacement of uterus. (*Drawn from measurements.*)

This is what takes place in the nullipara. On the other hand, prolapse is more frequent among the parous, and in prolapse the anterior vaginal wall is the part which commonly comes down first.*

Prolapse of the pelvic floor without relative displace-

* For evidence of these statements *see* papers by the author, "Obst. Trans." vol. xxxi.

ment of the uterus.—The slightest form of prolapse consists simply in exaggeration of the descent of the uterus and pelvic floor, which takes place in every woman during effort. On digital examination you find the uterus normal in position, movable, and of natural size. Its body cannot be felt either through the anterior or posterior vaginal wall. The vagina is not relaxed, nor its orifice unduly large. On inspection, when the patient is lying on her side, you see the perineum forming the bottom of a groove between the convex eminences of the buttocks, ascending slightly during inspiration, and descending to an equal extent during expiration. If, now, the patient be told to bear down, the perineum bulges downwards, forming, instead of the bottom of a groove, a third convex swelling between the two lateral ones of the buttocks. The uterus during this effort descends with the pelvic floor, but neither uterus nor vagina undergoes any change other than the slight normal descent into the vagina. The morbid condition present is abnormal yielding of the pelvic floor, without relative alteration of its parts (Fig. 22). The amount of descent can be noticed just as well by the hand, but it is more striking when observed by the eye.

The perineum ought not to descend more than about half an inch when the patient strains. In some cases it bulges down to the extent of two inches or more. Such excessive descent as this is usually accompanied with painful sensations. Uncomplicated cases of this kind are more frequent within a few months after parturition, because such yielding of the pelvic floor tends to become in time complicated with prolapse of the vagina and uterus. It is met with, although not often, in nulliparæ. In them it is associated with relaxation of the general muscular tone, and the symptoms vary with the general health, being absent when this is better than usual.

The symptoms are aching, dragging sensations, felt in the back and lower abdomen and down the thighs. Like many other pains,* it is often worse on the left side, mainly because the left side is weaker in resisting painful impres-

* See Champneys, "On the Pain of Pelvic Cancer," "Obstet. Trans." vol. xxii. p. 10. See also a paper by the author, "On the Frequency of Local Symptoms in Displacement of the Uterus," "Obst. Trans." vol. xxxv.

sions, 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 pain is removed by lying down. Pains of many kinds are lessened or removed by recumbency, and therefore, if this is so, it 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 mechanical treatment will be enough to cure it. It is made worse by walking and by defæcation, from the straining which accompanies that function. It is often associated with constipation. This implies scybala, which require straining to expel them, and such straining helps to weaken the pelvic floor. There is often irritability of the bladder. The conditions which make the pelvic floor prone to yield (child-bearing, debility, constipation) are those which also favour leucorrhœa, which is therefore often present. The symptoms are usually increased before and during menstruation, in consequence of the congestion of the pelvic organs which precedes this function, but menstruation otherwise is unaffected.

Treatment.—These symptoms can be relieved by support to the perineum. Vaginal pessaries are useless, because all that a vaginal pessary can do is to keep the vagina extended. In cases in which there is descent of the uterus, with inversion of the upper part of the vagina, vaginal pessaries, which keep the vagina extended, are serviceable; but in these cases there is no such condition. Support to the perineum is wanted. The readiest way of giving this support is by an ordinary napkin, very tightly fastened. The patient may find difficulty in keeping a napkin adjusted tightly enough. If so, advise an abdominal belt with a perineal pad (Fig. 23).

Fig. 23.—Perineal support.

These cases are important, because in them we have the phenomena of prolapse in their slightest and simplest