A METHOD OF SUPPORTING THE BLADDER IN CERTAIN CASES OF CYSTOCELE.*

By HERBERT L. SMITH, M.D., NASHUA, N. H.

THE procedure to be described—I should hardly dignify it with the name of operation—is a very simple method of supporting the bladder in certain selected cases of cystocele. The principle is, indeed, so very simple, in fact so almost absurdly obvious, that when it first suggested itself to me in the course of an operation, I could not believe it had not been used before; even now, although I have found no reference to such a technic, either in the text-books or such articles as I have been able to consult, and although all the operators with whom I have discussed the matter have said that it was as new to them as it was to me, I still think it must have occurred to some one long ago. Perhaps some of you may be able to inform me that the method has already been tried out and found wanting. However, as the results, though too few in number and too recent in date to permit of positive assurance, have in a certain restricted class of cases given me much satisfaction, I have felt it proper to offer you the suggestion for what it may be worth.

The method consists, in a word, in attaching the uterus to the posterior-inferior surface of the bladder, the cervix being sutured firmly to the posterior wall of the urethra, just above and behind the meatus. By this manoeuvre the bladder pouch is tucked up into the pelvis, and the bladder as a whole rests upon the anterior wall of the uterus as upon a shelf—just as it does upon the posterior wall of the uterus in the interposition operation. (See fig. 3.)

The first and obvious criticism of such a utilization of the uterus as a support for the bladder would be the fact that, in so doing, the uterus would be carried out of its normal plane, and that the disadvantages attendant upon the resulting retroversion would offset any good effects upon the cystocele. The answer to this is, I suggest, that in the rather restricted class of cases to which I should consider the operation applicable, this retroversion would either not be possible or could be entirely disregarded.

I first employed the method about eight months ago in an elderly woman who had already undergone an abdominal operation with fixation of the uterus, but who suffered much from a cystocele, which the operation had not relieved. She declined any extensive procedure, and I decided to give her as much relief as possible by a plicating operation upon the anterior vaginal wall. After the bladder pouch had been dissected free, it occurred to me that, instead of bringing the parts together laterally, making a line of sutures running lengthwise of the vagina, it would be easy to bring the cervix forward and attach it close up to and behind the

FIG. 1. Showing denudation of cervix and cystocele, and sutures applied through edge of triangular ligament which has been dissected free. Silkworm gut has been used by the author, and no uniform method of placing the sutures has been followed, but care has been taken to get a good bite through the dense structures of both cervix and ligament.

urethral meatus, then suturing the mucous membrane on each side, the line of closure running out laterally from the cervix across the vagina. By this means the bladder protrusion was tucked up nicely out of sight so that the cystocele area and base of the bladder rested upon the uterus. (See fig. 2.) The result was, and has

FIG. 2. Showing position of cervix after tying sutures. In some cases the cervix has been amputated as a preliminary step.

* Read at the inaugural meeting of the New England Surgical Society, Boston, Oct. 6, 1916.

FIG. 3. Showing obliteration of pouch between anterior lip of the cervix and bladder. In this illustration the fundus is supposed to have been suspended or fixed to the anterior abdominal wall.

remained, perfectly satisfactory to the patient and operator, all symptoms being entirely relieved. In two other cases, similar to this, where a previous abdominal operation, with one form or another of fundus support, had not cured the cystocele, the same procedure has given equally good results.

The outcome of these cases was so entirely satisfactory that I have ventured to fix the uterine cervix in the way described as a preliminary step in certain selected cases of abdominal pelvic operations. In one case of a large fibroid uterus, with an unusually large bladder hernia, where supravaginal hysterectomy was done, it was found that the cervix, attached as it was to the bladder, pulled that organ well up into the pelvis when the round ligaments were attached to the stump. Today, seven months later, the conditions are absolutely perfect and the relief complete.

I have now performed the operation eight times. Two of these are recent. The others have been seen or heard from after periods ranging from five to eight months. None show the slightest tendency to recurrence of the bladder pouch—in fact, judging from the present position of the organs, and of the unyielding nature of the tissues on which the bladder rests, I cannot conceive how a cystocele can re-form in any of them. Practically all the cases had a great

relaxation of the pelvic floor, with marked rectocele and in all cases a careful perineum operation was performed. As a majority of the patients operated upon were over sixty years of age, it was considered that, even if the fundus of the uterus should become displaced backward, that organ would, at the worst, rest more or less horizontally as a sort of bridge between the meatus in front and the repaired perineum behind, and that no extensive prolapse could occur. One elderly woman, whose age and general condition forbade either abdominal intervention or any operation requiring considerable time, shows now a fundus somewhat backward, but the organ is not large enough to produce rectal irritation, and the bladder symptoms are entirely relieved. Another patient, whose cervix was unusually long, while absolutely free from symptoms, was at first somewhat disturbed by the fact that she could feel the os in the vagina and feared that the old prolapse was recurring. An inspection showed that the attachment to the bladder was firm, and she declined to have the extra half inch of cervix removed.

There are several classes of cases in which the procedure I have described would seem to be indicated:

1. Very aged or infirm women, where a pro-

longed vaginal technic or abdominal section would not be safe.

2. Cases where the uterine body is already high up in the pelvis as the result of previous operations, but without relief of the cystocele.

3. Cases where the body of the uterus has to be removed, as in the case of uterine fibroids already described, and in which the bladder has become so stretched that merely supporting the stump from above will not iron out, so to speak, the cystocele pouch.

I need not say that the device here described should not be used universally or indiscriminately. The operations of Duhrssen, Goffe and Truesdale, and others, and the many modifications or combinations of them, will be used for the greater proportion of cases. There will still remain, however, or at least I conceive it so, a very considerable number of cases, usually rather hard to manage, in which this use of the uterus as a bladder support will be found advantageous and will afford an easy and safe means of giving relief to a most distressing condition.

ADDENDUM.

In a series of cases operated upon since the above paper was read a more exact method of suturing the cervix to the tissues below the meatus has been worked out. On a more careful dissection of the tissues it became apparent that the firm structure to which the uterus had been fastened was that band of the triangular ligament which runs below the urethra and spreads out laterally, in a fan-shape, to the pubic bones. (See fig. 1.) This ligament is very firm and inelastic, and no pull exerted upon it in any way appears to disturb the bladder or urethra. This fact is sufficient to explain the lack of symptoms which had rather surprised me in the earlier cases.

The unyielding nature of this structure also gives me additional reason to believe that when once a firm union has taken place between the dense tissue of the cervix and that of this ligament, the support of the bladder thus afforded by the uterine body will be permanent.

Since the reading of this paper eight additional cases have been operated upon, making now, sixteen in all. In one of these the union between the cervix and fascia was imperfect, apparently due to some constitutional condition, since an operation for ventral hernia in an old sear, undertaken at the same time, was likewise unsatisfactory. In this case, however, the symptomatic result is perfect at the time of writing, as the uterus was suspended, and there was sufficient union of the fascial flaps to obliterate the bladder pouch. Should this stretch out in the future it will be a simple matter to denude and suture the cervix once more to the triangular ligament. As the fundus is firmly attached above, the result, assuming that union takes place on the second attempt, should be as good as has been secured in all the other cases.

DISCUSSION.

DR. WILLIAM P. GRAVES, Boston: Dr. Smith's operation seems to me a very ingenious, and I am sure, a useful one. I have never seen the operation described in literature, and I think that Dr. Smith may safely assume the credit of having invented it. He speaks of its possible disadvantages in causing a retroversion of the uterus, and in this connection I wish to bring out a point which doesn't seem to be well known.

The uterus after the menopause is always retroverted in the second degree, so that its axis is coincident with the axis of the vagina. Therefore, inasmuch as this operation is recommended only after the menopause, it would not seem that any harm could be done by bringing the cervix forward. The operation is apparently especially applicable in those cases of elderly women where cystocele is present without prolapse of the uterus. In cases of this kind pessaries are often of little value, as the bladder is apt to come down past the support. If there is prolapse of the uterus, or if the uterus is heavy, or if the patient has not reached the menopause, I doubt if the operation is feasible. In younger women if the uterus should be pulled forward, as in Dr. Smith's operation, retroversion would result and possibly a later prolapse.

I favor the idea of this operation in the cases for which Dr. Smith recommends it, and I should be greatly interested to hear the later report from Dr. Smith as to the eventual outcome of his cases.

DR. HERBERT L. SMITH, Nashua (closing): I have nothing more to say except that I should limit the operation to certain definite cases, as Dr. Graves has said.

The history of one case impressed me much. It was that of an elderly woman who had the care of invalid husband, whom she had to lift. She had been operated upon by abdominal section, and the uterus was suspended, but the cystocele remained. She begged for relief from her surgeon, a well-known Boston operator, who told her that no other operation would do any good; that the cystocele would stretch out again. He advised her to have a pessary applied. That did her no good. She was referred to me, and I decided to try this expedient. Now she says she "does not know she has a bladder." The most interesting thing of all was that, whereas I feared the weight of the uterus might pull on the urethra or bladder, she has had no urinary symptoms from the moment of the operation; and I might add, a similar freedom from discomfort has been noted in all cases operated upon up to the present time.

DIAGNOSIS OF EXTRAUTERINE PREGNANCY.*

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TUBAL pregnancy presents itself to us in one of two ways—either as an ordinary case of pelvic disease or with symptoms due to rupture of the gestation sac and consequent hemorrhage.

The latter condition may constitute one of the gravest of surgical emergencies and demand immediate operation. Very exceptionally the

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