

## VAGINAL HYSTERECTOMY FOR UTERINE PROLAPSE

### Incidental Pathology

H. C. FALK, M.D., W. POLISHUK, M.D., AND C. SOLOMON, M.D., NEW YORK, N. Y.

*(From the Gynecological Department, French Hospital)*

THERE is no unanimity of opinion concerning the best operation, nor is there any single operation which can be employed in all types of uterine prolapse. There are three essential factors, however, which should be considered in determining the operation to be chosen: (a) the age of the patient, (b) the desirability of conserving the childbearing function, (c) the presence of disease in the uterus or adnexa. The treatment of prolapse in the childbearing age and in cases where coitus need not be provided for, needs but little discussion. The operative procedures in these cases do not appear to be controversial.

In most instances uterine prolapse occurs in women who are beyond the childbearing age or who have had all the children they desire. In these cases, one of the following three principal operations may be used: (a) the Fothergill-Manchester type of operation, (b) the interposition type of operation, (c) the vaginal hysterectomy, and colpoperineorrhaphy.

The repair of the relaxed pelvic floor should be part of every operation for prolapse, although it is not always specifically mentioned.

There is general agreement today that uterine prolapse with a diseased uterus, functional or organic, should be treated by vaginal hysterectomy and colpoperineorrhaphy.<sup>1, 2, 3, 4</sup> It is in those cases where no uterine or adnexal disease is found on vaginal examination that many gynecologists today perform the Manchester or the interposition procedure. The latter operation, although it gives excellent results, makes the diagnosis and treatment of any future uterine bleeding difficult, if not impossible. In the recent follow-up of 705 cases of prolapse treated by interposition operation, Zacherl and Tischer<sup>5</sup> found pathologic bleeding in 10 per cent of their cases and malignant disease in 1.2 per cent of cases.

Modifications of the interposition operation in which the fundus and cervix (Spalding,<sup>6</sup> Richardson<sup>7</sup>) are removed prior to interposing the remaining portion of the uterus have been suggested. These operations are complicated and more time consuming than the vaginal hysterectomy and colpoperineorrhaphy without affording many of the advantages of the latter operation.

In a number of clinics, the vaginal hysterectomy has become a routine procedure in cases of uterine prolapse.<sup>8, 9, 10</sup> In others, it is performed only when uterine disease like myoma, functional bleeding, etc., makes removal of

the uterus desirable. This report covers a series of patients who had a vaginal hysterectomy for uterine prolapse, but in whom no uterine or adnexal disease was diagnosed prior to operation. The results of this study have further confirmed our belief in the advisability of removing the uterus, once it has fulfilled its reproduction function, during an operative intervention for uterine prolapse.

### Material

The material studied consisted of 422 cases of uterine prolapse admitted to the French Hospital from 1940 to 1952, of which 227 were treated by vaginal hysterectomy and colpoperineorrhaphy. One hundred seventy-four of these patients had no other complaint than prolapse and on examination no evident uterine or adnexal pathology.

The age distribution of these patients is shown in Table I.

TABLE I. AGE DISTRIBUTION

AGE GROUP	NO. OF CASES	PER CENT
Under 40	41	23.5
41-50	73	42.0
51-60	45	25.8
61-70	12	6.8
71 and over	3	1.7

About 75 per cent of the patients were either premenopausal or menopausal. Besides the uterine prolapse, the patients studied had the following additional diagnoses: In 28 cases there were cervical lacerations and erosions. Prolapse of a "congenitally" elongated cervix without vaginal prolapse was reported in 9 cases. In only 6 cases was there second-degree prolapse alone. In all the remaining cases, uterine prolapse was associated with cystocele or cystoectocele with perineal relaxation. This group also includes 9 cases with the preoperative diagnosis of uterine fibroid in addition to prolapse. Following removal of the uterus, however, no fibroids were found.

The operative procedure employed in the cases reported was vaginal hysterectomy with anterior and posterior colporrhaphy and perineorrhaphy. The operations were performed by nine different surgeons. The technique followed was that described by the senior author.<sup>11</sup>

### Pathology

In 114 cases 65.5 per cent uterine or adnexal pathology was found. In the other 34.5 per cent, normal uteri were removed and no significant pathology was observed in the adnexa.

1. *Body of the Uterus.*—The most frequent uterine pathology encountered was fibroids. These ranged from multiple small myomas up to a single fibroid 6 cm. in diameter. Twenty per cent of them were submucous in location. There were a total of 45 cases of fibroids, or a frequency of 25.8 per cent.

There were 37 cases of adenomyosis (21.2 per cent). In 9 cases, a superficial adenomyosis was associated with fibroids. Endometrial polyps and polypoid endometria were encountered in 31 cases, i.e., a frequency of 17.8 per cent.

In two cases (1.1 per cent), adenocarcinoma of the endometrium was found on histological examination. These were postmenopausal women of 54 and 64 years of age, respectively. Their complaints were due to uterine prolapse and cystoectocele. Vaginal examination in both cases did not reveal

any abnormality except the prolapse and relaxation of the pelvic floor. In one of these cases, a routine vaginal smear done 5 months prior to admission to the hospital failed to reveal any malignant cells. In none of these cases was there any irregular spotting or bleeding. Since the diagnosis was not made until the pathological findings were reported, the adnexa were not removed.

2. *Cervix*.—Chronic cervicitis was present in 80 per cent of cases. There were also 15 cases of cervical erosion and 6 cases of unsuspected endocervical polyp.

3. *Ovaries*.—There were 6 ovarian cysts. These were: 1 dermoid cyst; 2 follicular cysts; and 3 serous cystadenomas. The pathology found in the 174 selected cases is shown in Table II.

TABLE II. PATHOLOGICAL FINDINGS IN 174 CASES

	CASES	PER CENT
<i>Body of Uterus</i> .—		
Myoma uteri	45	25.8
Myoma and adenomyosis	9	5.1
Adenomyosis	37	21.2
Endometrial polyp	31	17.8
Adenocarcinoma	2	1.15
<i>Cervix</i> .—		
Cervical erosions	15	8.6
Endocervical polyps	6	3.4
<i>Tubes</i> .—		
Chronic salpingitis	1	0.5
<i>Ovaries</i> .—		
Cysts	6	3.4
Dermoid	1	
Follicular cysts	2	
Serous cystadenoma	3	

### Postoperative Course

The postoperative course in all cases was characterized by the absence of shock, low morbidity, and rapid convalescence. Our postoperative routine consists of early ambulation and retention catheter for five days. If the patient does not void following removal of the retention catheter she is catheterized every 8 hours; should she void she is catheterized once a day after voiding for the residual urine. Six grams of Gantrisin is given daily in divided doses until the urinary residual is 30 c.c. or less, when residual catheterization is stopped. In about 10 per cent of our cases (17 cases) we encountered urinary retention due to bladder atony which lasted from eight up to twenty-eight days following operation. Infections developed in 12 cases: These consisted of pneumonia in one case; cystitis in 6; pyelitis in one; thrombophlebitis in 3; and local infection in one case. There were 2 cases of postoperative bleeding from the vagina which were controlled by packing only. In one case, a broad ligament hematoma had developed but required no active therapy.

About 80 per cent of the cases have had a follow-up of from one to nine years. In only one case did we encounter a secondary enterocele. The follow-up of the 2 cases of adenocarcinoma of the cervix is not known to us. The results were otherwise gratifying both anatomically and clinically.

### Comment

The surprising fact which emerges from this study is the high incidence of uterine and ovarian disease not accompanied by obvious clinical manifestations and not detected on pelvic examination.

The frequency of uterine fibroids, adenomyosis, and endometrial polyps in our series does not greatly exceed the frequency with which these conditions are generally encountered in gynecological material.

The frequency of uterine fibroids varies according to different statistics. Essen-Møller<sup>12</sup> reports a rate of 4.5 per cent of uterine fibroids in a series of 20,000 patients. Senator and Kaminer report a frequency of 11 per cent, while Welch's autopsy record as quoted by Kelly and Cullen<sup>13</sup> shows a rate of 20 per cent.

In order to ascertain the frequency of adenomyosis, 767 uteri removed for various indications in the French Hospital between 1950 and 1952 were studied. Adenomyosis was found in 166 uteri, or a rate of 21 per cent. Hunter, Smith, and Reiner<sup>14</sup> report an incidence of 27 per cent of adenomyosis in 1,856 uteri removed for various gynecological conditions. It must be pointed out that the rate of adenomyosis in these last two series would be expected to be higher than in the population at random in view of the fact that these patients were operated upon for various gynecological complaints.

We had two cases of unsuspected adenocarcinoma of the fundus, a frequency of 1.1 per cent. This is a relatively high incidental finding. However, Codenhead,<sup>15</sup> reporting on 218 cases of vaginal hysterectomy for prolapse in the aged, observed 7 cases of uterine carcinoma at biopsy (3.2 per cent). Cofel and Evans<sup>16</sup> found, in 746 cases of vaginal hysterectomy performed for benign conditions, 4 cases of adenocarcinoma of the endometrium, one case of sarcoma and 26 of cervical carcinoma. Falk<sup>11</sup> in his report of 500 cases of vaginal hysterectomy found 1.4 per cent of endometrial carcinoma and 0.4 per cent of endometrial sarcoma.

Among the gynecologists who do vaginal hysterectomies there seems to be a consensus that in uterine prolapse the uterus should be removed if it is diseased. Our present study seems to indicate that the uterus and adnexa have more than a 50 per cent chance of being diseased without manifesting clinical symptoms at the time of operation for prolapse. As a result of these findings it is possible that some of the patients in the present series might have required further surgery if their uteri had not been removed at the time.

It is not the purpose of this paper to condemn the Manchester or interposition types of operation. In the hands of well-trained gynecological surgeons, however, the vaginal hysterectomy performed in conjunction with cystocele repair and perineorrhaphy is superior to the other procedures because: (a) it affords the removal of a diseased uterus or a uterus which is very likely to be diseased; (b) it precludes the development of carcinoma of the uterus or cervix; (c) it gives an opportunity to inspect the ovaries and tubes and remove any diseased part; (d) the operation is well tolerated, has a low morbidity rate, and a rapid convalescence; (e) vaginal hysterectomy and colpoperineorrhaphy give excellent anatomical and clinical results.

### Summary

1. The incidental pathology found in 147 vaginal hysterectomies performed in patients with uterine prolapse and no other symptoms is reported.

2. Vaginal hysterectomy and colpoperineorrhaphy are suggested as the procedure of choice in the treatment of uterine prolapse.

### References

1. Te Linde, R. W.: *Operative Gynecology*, Philadelphia, 1946, J. B. Lippincot Company.
2. Phaneuf, L. E.: *The Management of Prolapse of the Uterus and Vagina*, in Meigs, J. V., and Sturgis, S. H., editors: *Progress in Gynecology*, New York, 1950, Grune & Stratton.
3. Crossen, H. S., and Crossen, R. J.: *Operative Gynecology*, ed. 6, St. Louis, 1948, The C. V. Mosby Company.
4. Bonney, V.: *A Textbook of Gynecological Surgery*, London, 1947, Cassell and Company.
5. Zacherl, H., and Tischer, H.: *Wien. klin. Wchnschr.* **63**: 635, 1951.
6. Spalding, Alfred B.: *Surg., Gynec. & Obst.* **29**: 529, 1919.
7. Richardson, Edward H.: *AM. J. OBST. & GYNEC.* **34**: 814, 1937.
8. Curtis, A. H.: *A Textbook of Gynecology*, Philadelphia, 1943, W. B. Saunders Company.
9. Campbell, A. D.: *Vaginal Hysterectomy*, in Meigs, J. V., and Sturgis, S. H., editors: *Progress in Gynecology*, New York, 1950, Grune & Stratton.
10. Waugh, J. M.: *S. Clin. North America* **27**: 796, 1947.
11. Falk, H. C.: *Harlem Hosp. Bull.* **1**: 2, 1948.
12. Essen-Moller, C.: Quoted by Frank, R. T.: *Gynecological and Obstetrical Pathology*, ed. 2, New York, 1931, D. Appleton and Company.
13. Kelly, H. A., and Cullen, T. S.: *Myoma of Uterus*, Philadelphia, 1909, W. B. Saunders Company.
14. Hunter, W. C., Smith, L. L., and Reiner, W. C., *AM. J. OBST. & GYNEC.* **53**: 663, 1947.
15. Codenhead, E.: *J. Internat. Coll. Surgeons* **15**: 57, 1951.
16. Cofer, D. S., and Evans, A. L.: *J. M. A. Georgia* **41**: 90, 1952.