SHIRODKAR'S MODIFIED MANCHESTER OPERATION

by

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Genital prolapse forms a major part of gynaecological practice. Although the principles of anatomy of prolapse have been agreed upon by many, no two gynaecologists would agree upon a particular operation as a remedial measure.

At the present time, a diversity of operative techniques is available for the treatment of prolapse. Although there is still a place for further refinement of their technical details, it is true that in a sense these techniques are already quite adequate to meet with the needs of the wide range of conditions—loosely denoted by the term 'Prolapse'.

Every surgeon has his favourite methods—methods which in his hand give good results over a wide range of his cases—but the danger of regarding these methods as right and others wrong must be guarded against.

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Received for publication on 6-3-67.

The choice of a particular surgical procedure depends on many factors:—

(1) Nature and extent of structural changes present.
(2) Aetiology in each case.
(3) Nature and severity of symptoms.
(4) Need for conservation of functions.
(5) Presence of associated disease.
(6) Tolerance of the patient.

Despite the weight of tradition, the treatment of genital prolapse is essentially a practical discipline; the practice must be based primarily on experience. There are a variety of factors that need consideration prior to the selection of operation during the reproductive period for a particular case as there are disadvantages like increased incidence of sterility, abortions and premature labours, marked increase in the complications attendent upon labour with the resultant increase in the operative delivery rate associated with the Manchester operation.

Shirodkar logically feels that "in Fothergill's operation, the paracervical tissues are brought forwards forcibly and is a poor attempt to—

shorten the ligaments and does not effect in pulling the cervix high up in its natural position. To obtain the anatomical result, amputation of the cervix has to be done and the apparent result is obtained at the expense of the anterior fornix, which is invariably obliterated as a result of excision of 'V' shaped part of the anaterior vaginal wall. The amputated cervix leads to the disadvantages mentioned above in women of child-bearing age."

To overcome these disadvantages he devised a new procedure. He believes that the uterosacrals along with their peritoneal covering act as the main supports. The pouch of Douglas is opened up. The uterosacral ligament is dissected along with its peritoneal covering and depending upon the length of uterosacral ligament available, he fixes them in front of the cervix or crosses them in the midline, if sufficiently long, thus effecting the shortening and the advancement as well.

Another advantage of this procedure is that the retroversion having been corrected by either the uterine sound or Fenton's dilator, the uterosacrals are fixed to the cervix. The uterus is thus maintained in the anteverted position. Anterior colporraphy and posterior colpoperineorrhaphy were always done in Shirodkar's operation like in all other repair operations done vaginally.

Material:—This report is intended to be the statement of results following Shirodkar's advancement of utero-sacral operation carried out in B. Y. L. Nair Charitable Hospital, Bombay, between January 1961 and December 1965. Thirty-three patients were taken up for this operation. This operation was performed on young women, where child-bearing or menstrual function had to be preserved. The average age of the patients was 26 years (minimum 18 years and maximum 34 years).

Clinical Features

The chief complaints were, something coming out per vaginam, dysuria, backache, dysmenorrhoea, leucorrhoea and pain in lower abdomen. Four patients attended primarily for secondary sterility. Two cases had supravaginal elongation varying from 1″ to 2″. There were 24 cases with second degree and 9 cases with 3rd degree prolapse.

TABLE I

Details of Clinical Findings in this Series

Degree of Prolapse		Cytocele	Urethrocele	Prolapse of pouch of Douglas	Rectocele
1st Degree	Nil	—	—	—	—
2nd Degree	24	19	2	3	16
3rd Degree	9	9	2	2	8
Total	33	28	4	5	24

Investigations done

Hemoglobin estimation (average haemoglobin in this series was 60%), urine examination, blood V.D.R.L. blood grouping and cross matching and screening of chest were done as a routine. Urine culture and antibiotic sensitivity tests were done in cases of dysuria and large cystoceles, and vaginal cytology was done only in selected cases.

Post-operative management

All the patients in this series received injection Crystalline Penicillin 5 lac. 12 hourly, Inj. Streptomycin ½ grm. 12 hourly, daily, for an average period of 10 days. A tight acriflavine vaginal pack was kept in for 8 hours. A self-retaining catheter was introduced post-operatively and removed on the morning of the 3rd day. The patients were allowed to move about in the wards after the catheter was removed.

The average period of hospitalisation was 12.2 days (minimum being 7 days and the maximum 30 days).

As a part of out-door treatment, vaginal antiseptic tablets were advised for a variable period—usually 10 days.

The patients were instructed to avoid intercourse for a period of 2 months and conception for at least 6 months.

Two patients from this series did not menstruate after the operation as they conceived immediately. In these two cases, the perineorraphy gave way at the time of delivery but there was no uterine prolapse. It is advisable to make routine episiotomy following repair of prolapse.

Complications

Eight cases were found to have pyrexia in the immediate post-operative period. Six of these cases showed pus cells on microscopic examination of urine and were treated with Sulpha drugs and furadantin. Maudsley gives incidence of urinary tract infection following vaginal surgery as 47.5% and attributes the same to indwelling catheter or repeated catherisation. Our low incidence (18%) may be due to the fact that our diagnosis was clinical and routine culture was not carried out in every case post-operatively. One case developed a haematoma following anterior colporrhaphy and was treated by drainage of the haematoma and higher antibiotics. One case had pyrexia. By exclusion of other causes, the rise of temperature was found to be due to breast engorgement as the patient had weaned during her stay in the hospital.

Haemorrhage: One patient collapsed on the evening of the day of operation. The catheter had come out, an attempt to put in the catheter failed. There was slight bleeding per vaginam. In view of the patient's condition one finger vaginal examination was done gently. The anterior vaginal wall was bulging so much that the cervix could not be felt. The anterior vaginal wall felt cystic. The patient did not allow proper examination due to tenderness. A swelling above the symphysis pubis was also felt.

The patient was taken to the theatre, blood transfusion was started, catheterization was done but there was no urine. It was thought that the haematoma could have oc-

curred between the bladder and the vaginal mucosa and the mucosal stitiches were cut. Haematoma could not be visualized. A decision was made to open up the abdomen. There was bulging of anterior peritoneal pouch. There was a big haematoma but active bleeding point was not found and a decision was taken to proceed with hysterectomy. The patient was kept in hospital for 4 weeks and did well post-operatively. The patient required 3 blood transfusions of 350 c.c. each. Incidently it may be mentioned here that she had two children.

Serosanguinous oozing from the wound

These cases were treated with hydrogen peroxide and acriflavine vaginal instillations. In 12 cases this could have been attributed to wound infection.

Weakness of the right quadriceps muscle occurred in one case which could be attributed to spinal anaesthesia. She was treated with physiotherapy with some improvement.

Indications for blood transfusion

Seven cases in this series were given blood transfusion either during the operation or during the near post-operative period. In one case 3 units of blood had to be given for internal haemorrhage. In two patients the blood pressure fell to 60 mm. mercury following spinal anaesthesia. It was considered that blood transfusion would serve the purpose better as the patients were anaemic to begin with (average 60% haemoglobin). In the remaining 4 patients extra oozing during the operation was considered an indication for transfusion. Each one of the above cases was given 1 unit of blood. Robertson used blood transfusions as a routine in vaginal operation if the haemoglobin was less than 10 gm.%. In this series blood transfusion was used only when indicated and not specifically for anaemia.

Some complications are reported after this operation but they were not observed in this series.

(1) Sloughing of the cervix may occur if the cervical suture is taken very deep leading to necrosis. Extensive clamping of utero-sacrals might include the uterine artery and may be a factor responsible for sloughing of the cervix.

(2) Cervicovaginal fistula: may follow sloughing of the cervix —one patient operated at another teaching institution was examined in the out-patient department of this hospital and this entity was recognized. This patient later conceived and delivered through the cervicovaginal fistula. Delivery was uneventful.

(3) Elongation of the anterior and/or posterior lip may occur.

Additional procedures

(i) Rubin's test, and dilatation and curettage were done in three cases as the patients, although attending primarily for prolapse, were cases of secondary sterility. (ii) Trachelorrhaphy was done in one case as the cervix was torn. In one patient cervicopexy had been done at another institution for sterility and prolapse.

This case was taken up for Shirodkar's operation. (iii) The pouch of Douglas was not opened in 2 cases. In the strict sense, this could not be called Shirodkar's procedure, as he counts on uterosacral ligaments along with the flap of peritoneum as a support. But this procedure being nearer to Shirodkar's these cases are included in this series.

Ventral suspension was done in one case as an additional support as the uterosacrals were found to be very weak and flimsy. Tubal ligation was done in four cases as the patients were young but multiparous and hysterectomy was not advisable.

Results

Out of 33 patients, 21 responded by attending the follow up; 6 patients had 9 pregnancies and they were uneventful.

The cases selected for this series consisted of a group of women of child-bearing age and hence the desire to preserve the mentrual, reproductive and coital function. Table II shows only 2 cases of recurrence of uterine prolapse in the group of 21 cases who responded by attending for follow up. One patient had cervicopexy done at another hospital which failed and Shirodkar's procedure was done; uterosacrals were thin and prolapse recurred. The other patient had second degree of prolapse during subsequent pregnancy but improved markedly during the puerperal period with pessary and physiotherapy.

TABLE II

No. of cases operated: 33		Postoperative follow up 21 cases
Prolapse (uterine)	33	2
Cystocele	24	4
Urethrocele	4	2
Prolapse of pouch of Douglas	—	—
Rectocele	24	8
Deficient perineum	5	2
Retroversion	30	4

The results obtained in this series seem to be quite satisfactory. The recurrence of cystocele and rectocele seems to be higher compared to Hunter's series. This could be the individual factor as the major difference between these two procedures lies with the repair of the ligamentary supports of the uterus. Table III.

TABLE III

Comparison of Results of Manchester Fothergill Colporraphy (John Hunters') with our Results

	Hunter's Series of 330 cases	Our series of 33 cases
Recurrence of cystocele	6.9%	19%
Recurrence of rectocele	3%	33%
Recurrence of prolapse	—	10%

Details of two cases explained in text.

Summary and conclusions

(1) Thirty-three cases of Shirodkar's modification of Manchester operation are reviewed.
(2) The sound anatomical basis of Shirodkar's operation has been emphasised in the background of Manchester operation.
(3) This operation seems to have a definite place in the treatment of genital prolapse especially during the reproductive

age, where child-bearing function has to be preserved.

(4) The results obtained, especially as far as uterine prolapse is concerned, are very impressive, the post-operative complications and morbidity being minimum.

Acknowledgement

Our thanks are due to Dr. T. H. Rindani, M.D., F.A.Sc., F.A.M.S., D.Sc.; Dean, B.Y.L. Nair Charitable Hospital and T.N. Medical College; Bombay-8 for his kind permission to publish this paper.

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