

THE PLACE OF ABDOMINAL SLING OPERATION IN GENITAL PROLAPSE OF YOUNG WOMEN

by

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Almost all gynaecological surgeons perform vaginal hysterectomy with pelvic floor repair in patients with genital prolapse above the age of 40 years. But there is no uniform opinion regarding the treatment of genital prolapse in young women. Even today in most centres the choice of operation is Manchester repair. Unfortunately, Manchester repair has got many drawbacks; it reduces fertility with pregnancy occurring in only 10% to 33% of the cases (Chaudhuri, 1979; Kaser and Ikle, 1965), it may cause abortion and premature labour leading to the loss of the child in 20% to 50% of the cases (Jeffcoate, 1975) or to obstructed labour leading to caesarean section in 20% to 55% of the cases (Jeffcoate, 1975); post-operative haemorrhage occurs quite often, sometimes of a very intractable nature (Montgomery, 1950; Chaudhuri, 1979); it leads to dyspareunia or apareunia in about 20% to 25% of cases (Montgomery, 1950; Jeffcoate and Francis, 1961) and recurrence of prolapse after delivery or even without pregnancy in 20% to 50% of the cases (Shaw, 1933; Solomons, 1955).

For these drawbacks many gynaecologists believe that the Manchester operation is not suitable for young women, particularly those desiring more children, and that other types of operations, such as

sling operations should be considered (Arthure and Savage, 1957; Shirodkar, 1959; Chaudhuri, 1979).

From time to time, various types of uterine suspension operations have been described, including sacral hysteropexy (Arthure and Savage, 1957); posterior cervicopexy (Shirodkar, 1959), modified Manchester operation (Currie, 1952; Shirodkar, 1959) and anterior sling operations (Arthure, 1949; Purandare *et al*, 1966).

Until 1965, conventional line of treatment, either Manchester repair or simple colporrhaphies were followed by the author on 85 patients of genital prolapse in young women below 35 years of age (Chaudhuri, 1979). Being not satisfied with the results of treatment, since 1966 a different surgical approach was undertaken. Two hundred and forty cases of genital prolapse in women of 35 or less years of age were divided into 4 groups for four types of operations:—(a) abdominal sling operations—160 cases; (b) vaginal sling operations—21 cases, (c) Manchester repair—39 cases and (d) simple colporrhaphies—20 cases.

In this article the criteria of selection, author's technique, results and observations of abdominal sling operation performed on 160 cases (66%) of young women with genital prolapse will be described.

In this operation two slings are made

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out of external and internal oblique aponeuroses which are fixed to the anterior surface of the cervix extraperitoneally. In 1949, in a Symposium of the Royal Society of Medicine, London, Arthure first described the use of external oblique aponeurosis sling in a small number of vault prolapse and in complete procidentia cases in elderly patients mostly of postmenopausal age (Arthure, 1949). In the same Symposium, the late Sir Charles Read advocated use of this sling operation for major degrees of genital prolapse in nulliparas. While these types of slings were quite extensively used by Williams and Richardson (1952) for the treatment of post-hysterectomy vault prolapse no other paper was published until 1966 when Purandare *et al* described the use of this type of abdominal sling in the treatment of genital prolapse in young women desiring future childbearing. In this paper (Purandare *et al*, 1966) the authors mentioned that B. N. Purandare used this operation since 1956. As such this operation is quite commonly known as Purandare operation. The author follows this technique in a modified way and extended its use in a wider way for the treatment of genital prolapse in young women irrespective of their parity and desire for future childbearing who meet the criteria of selection.

Criteria of selection for abdominal sling operation

- (1) 35 or less years of age.
- (2) Gross first degree to 3rd degree of uterine descensus and complete procidentia.
- (3) Nil to slight true cystocele (judged by pushing the cervix into the vaginal canal for about 8-9 cm by means of a sponge holding forceps and asking the patient to strain down).

(4) Slight elongation of the cervix (i.e. uterine cavity length of less than 9 cm).

(5) No stress incontinence.

Technique of abdominal sling operation

The technique of the operation has been described in detail by the author earlier (Chaudhuri, 1979) and is described in short here. A low transverse incision of about 12 cm is made on the lower abdomen about 2.5 cm above the symphysis pubis. The external and internal oblique aponeuroses are cleared of subcutaneous fat, cut along the skin incision and separated from the linea alba and rectus muscles. Two slings of about 1.25 cm are made out of the upper portion of cut aponeuroses, keeping them attached on the lateral sides with the main muscles. The abdomen is opened, pelvic organs are visualised for any associated abnormal pathological condition which are dealt with at this stage. Retrograde insufflation is done in sterility cases when needed. The uterovesical pouch is cut and bladder pushed down. The slings are drawn retroperitoneally by means of a long curved forceps through fascia transversalis, pushed first towards the internal abdominal ring then turned inwards through the broad ligament and fixed with silk sutures with the anterior wall of the cervix below the level of the internal os. The uterovesical pouch is closed, round ligaments are plicated and the abdomen is closed in layers.

In cases where colporrhaphies or other vaginal operations are needed they are performed first vaginally before the abdominal sling operation.

Patient Characteristics

Characteristic features of the cases are shown in Table I. 46.3% of the cases

were below 25 years, the youngest being only 14 years old and 84.8% cases were below 30 years of age.

TABLE I
Patient Characteristics (N = 160)

Characteristics	No.	%
Age (Years):		
14-25	74	46.3
26-30	60	27.6
31-35	26	16.2
Parity:		
0	26	16.2
1	55	34.4
2	63	39.4
3 or more	16	10.0
Uterine Prolapse:		
1st degree	Nil	
2nd degree		
Early	48	30.0
Gross	100	62.5
3rd degree	8	5.0
Complete procidentia	4	2.5
Cystocele (True):		
Nil	102	63.8
Slight	58	35.2
Rectocele:		
Nil	136	85.0
Slight	16	10.0
Moderate	4	1.5
Gross	4	2.5
Vault Prolapse:		
	4	2.5
Other changes:		
Intra-vaginal elongation of cervix	6	3.7
Chronic cervicitis	32	20.0
Decubital ulcer	4	2.5
Uterine atrophy	6	3.7

Uterine Prolapse :

- 1st degree—Cervix descends upto introitus.
 2nd degree—Cervix descends outside introitus but most of the body remains inside.
 Gross 2nd degree—Cervix protrudes more than 2.5 cm.
 3rd degree—Most of the uterus descends with

complete eversion of vagina.

Complete procidentia—Whole of the uterus descends outside introitus.

Cystocele :

Moderate—Anterior vaginal wall descends upto introitus.

Gross—It descends outside introitus.

Rectocele :

Moderate—Posterior vaginal wall descends upto introitus.

Gross—It descends outside introitus.

Twenty-six cases were nulliparas and 55 cases (34.4%) had 1 child only, 49.4% cases had 2 or more issues but many of them had either one or no living issues and some of them had daughters only and desired at least one son.

Majority patients (92.5%) had 2nd degree uterine prolapse. Four patients had complete procidentia—all of these ones had atrophied uterus due to prolonged lactation.

Rectocele moderate to severe degrees was present in 8 cases and all had additional colporrhaphies.

Only 4 cases had vault prolapse.

Intravaginal elongation was present in 6 cases only (3.7%) and none had gross supravaginal elongation, with uterine cavity length of less than 9 cm in all the cases.

Associated Operations

Associated operations performed along with abdominal sling operations are shown in Table II.

TABLE II
Associated Operations Performed Along with
Abdominal Sling Operations (N = 160)

Operations	No.
Ligation of tubes	42
Amputation of cervix	3
Removal of ovarian cyst	2
Removal of T.O. cyst	3
Pursestring suture in pouch of Douglas	4
Colpoperineorrhaphy	8
Retrograde insufflation or dye test	25
Tuboplasty operations	8

Out of 160 cases ligation was performed in 42 cases.

In 3 cases of gross intravaginal elongation, amputation of the cervix had to be performed.

In 25 cases of sterility retrograde insufflation or dye tests were performed and in 8 of them tuboplasty operations were done also.

In 4 cases of vault prolapse pursestring sutures were applied in the pouch of Douglas.

Tubo-ovarian cysts and ovarian cysts were removed in 5 cases.

Complications

Complications were rare. Wound infection occurred in 8 cases of which 2 cases needed secondary stitches. One patient had urinary infection and another one had mild haematoma in the stitch area. Complications happened in 9 out of 160 cases (5.6%).

Follow up

Fifty-six cases were followed for 1 to 14 years; of these 4 cases had recurrence of prolapse. One nulliparous woman had recurrence within 3 months who was cured by Shirodkar's posterior cervicopexy using fascia lata. Two cases who became pregnant within 6 weeks to 12

weeks of operation had recurrence; in 1 case after delivery there was no prolapse as such recurrence was apparent. Another case is awaiting operation. Some of these 3 cases had recurrence of cystocele or rectocele or both. One case had gross vault prolapse only, which was cured by vaginal operation later on. Five patients complained of laxity of vagina, a common complaint of multiparous women, none of them required any surgical interference.

Pregnancy Outcome

Only 41 cases who had abdominal sling operation without ligation could be followed. Pregnancy occurred in 25 of them (60%), of which 3 ended in abortions, and 3 had caesarean sections for other indications like placenta praevia, utrine inertia and toxæmia; 19 cases had normal vaginal delivery. There was no difficulty in performing caesarean section as the incisions were put above the area where the slings remained attached which were fixed originally below the level of the internal os.

Discussion and Conclusion

Genital prolapse is very common in young women in India. In an earlier study the author (Chaudhuri, 1973) found that 29% of genital prolapse happened within 30 years and 47% happened within 40 years of age. Prolapse is also very common in our country even after one or two issues even though the majority of them had normal deliveries. This is because of congenital weakness of supports of genital organs which may in turn be due to malnutrition (Dawn 1966). That is why in the present series, 26 cases (16.2%) were nulliparas and 55 cases had just 1 child (34.4%). Congenital type of prolapse with gross uterine

descent without the presence of true cystocele with or without rectocele is commonest in young women in our country (Chaudhuri, 1979).

In congenital type of prolapse where the uterus comes out due to inherent weakness of supports mostly, aggravated by childbirth, tightening of Mackenrod's ligament which is the main factor for cure of uterine descent in Manchester repair cannot be effective. That is why orthodox Manchester repair does not work satisfactorily in these cases. There is no difference of opinion that Manchester repair is certainly not suitable for those who want further issues (Fisher, 1951) high incidences of dyspareunia and post-operative haemorrhage are also great drawbacks (Jeffcoate and Francis, 1961; Montgomery, 1950).

To overcome these drawbacks of this popularly practised operation the author is trying this new surgical approach to genital prolapse in young women for the last 15 years performing four types of operations and found that abdominal sling operation is suitable for majority of these cases and the observations of the present study show a satisfying result provided the strict criteria of selection are followed. The other operations namely vaginal sling operations, Manchester repair and simple colporrhaphies have their definite places also as was found in the author's earlier study (Chaudhuri, 1979) which has been corroborated by extension of the study the result of which will be published in a separate paper shortly.

The author advocates strongly abdominal sling operation in young women not only in those who desire further child-bearing but also in other cases for the following advantages: (a) it does not reduce fertility or affect outcome of pregnancy in the form of abortion, premature labour or

increased incidence of caesarean section, (b) it does not produce dyspareunia which is of great importance in family life of young women, nor it increase the incidences of post-operative haemorrhage, cervical stenosis, dysmenorrhoea and haematometra, (c) hospital stay is less than following Manchester repair and (d) it provides an opportunity to perform at the same time tuboplasty and other operations for sterility, to deal with pelvic pathological conditions such as tubo-ovarian mass, ovarian cyst etc. and to perform ligation of tubes with reduced complication rate and better success rate than when performed vaginally.

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References

1. Arthure, H. G. E.: Proc. R. Soc. Med. 42: 388, 1949.
2. Arthure, R. G. E. and Savage, D.: J. Obstet. Gynec. Brit. Emp. 64: 355, 1957.
3. Chaudhuri, S. K.: J. Obstet. Gynec. India, 23: 178, 1973.
4. Chaudhuri, S. K.: Int. J. Gynec. Obstet. 16: 314, 1979.
5. Currie, D. W.: J. Obstet. Gynec. Brit. Emp. 59: 858, 1962.
6. Dawn, C. S.: J. Ind. Med. Assoc. 12: 641, 1966.
7. Jeffcoate, T. N. A. and Francis, W. J. A.: J. Obstet. Gynec. Brit. C'wlth. 68: 1, 1961.
8. Jeffcoate, T. N. A.: Principles of Gynaecology, 4th ed., Butterworth & Co., London. 1975, p. 266.

9. Kaser, O. and Ikle, F. A. and Davis, A.: Gynaecologic operations, G. T. Verlag, Stuttgart, West Germany, 1965, p. 171.

10. Montgomery, T. L.: In Progress in Gynaecology (ed. J. V. Meigs and S. H. Sturgis), Vol. II. Grune & Stratton, 1950, p. 677.

11. Parsons, L. and Somers, S. C.: Gynaecology, W. B. Saunders Co., Philadelphia, 1962, p. 1031.

12. Purandare, V. N., Patil, K. and Arya, R.: J. Obstet. Gynec. India, 16: 53, 1966.

13. Shirodkar, V. N.: Contributions to Obstetrics and Gynaecology, E. & S. Livingstone Ltd., London, 1959, p. 25.

14. Williams, G. A. and Richardson, A. C.: Am. J. Obstet. Gynec. 64: 552, 1952.

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REFERENCES

1. Kaser, O. and Ikle, F. A. and Davis, A.: Gynaecologic operations, G. T. Verlag, Stuttgart, West Germany, 1965, p. 171.

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4. Purandare, V. N., Patil, K. and Arya, R.: J. Obstet. Gynec. India, 16: 53, 1966.

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6. Williams, G. A. and Richardson, A. C.: Am. J. Obstet. Gynec. 64: 552, 1952.

RESUME

The author reports on the results of a study conducted in the Medical College Hospital, Madras, on the use of the M. M. S. (Muller-Michael-Schwarz) operation for the treatment of uterine fibroids. The study was conducted over a period of two years and involved 100 cases. The results show that the operation is a safe and effective method of treatment for uterine fibroids, with a high percentage of cases being cured. The author concludes that the M. M. S. operation is a valuable addition to the surgical armamentarium for the treatment of uterine fibroids.

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REFERENCES

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2. Montgomery, T. L.: In Progress in Gynaecology (ed. J. V. Meigs and S. H. Sturgis), Vol. II. Grune & Stratton, 1950, p. 677.

3. Parsons, L. and Somers, S. C.: Gynaecology, W. B. Saunders Co., Philadelphia, 1962, p. 1031.

4. Purandare, V. N., Patil, K. and Arya, R.: J. Obstet. Gynec. India, 16: 53, 1966.

5. Shirodkar, V. N.: Contributions to Obstetrics and Gynaecology, E. & S. Livingstone Ltd., London, 1959, p. 25.

6. Williams, G. A. and Richardson, A. C.: Am. J. Obstet. Gynec. 64: 552, 1952.