

PELVIC RELAXATION IN CHILDBEARING AGE GROUP

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SUMMARY

Pelvic relaxation is a disorder of pelvic support and the present study was undertaken to analyse the surgical treatment of this disorder in the childbearing age group of women. Our series consists of 78 patients who came to our gynaecologic O.P.D. at the Lokmanya Tilak Municipal General Hospital, Sion, Bombay over a period of two years, January 1988 to December 1989. The complex nature of the problem of pelvic relaxation is evident from the fact that more than a score of operations have been devised to cure this disorder. To give the patient a normal menstrual function and to retain their future capability of bearing children is the vital aim of the treatment. Sterilisation along with repair was also performed for those who had completed their family and had more than two living children. A comprehensive review of the presenting complaints, pre-operative workup, the various operations done at our institution, any post-operative complications and the followup complete our paper.

INTRODUCTION

Female urogenital organs are supported by: 1) cardinal & uterosacral ligament complex 2) pelvic diaphragm & levator ani-muscle and 3) tone of the vagina. Pelvic Relaxation is a disorder of pelvic support, the clinical presentations of which are urethrocele, cystocele, rectocele, enterocele, uterine prolapse and vaginal vault prolapse (Nichols & Randall, 1976). Only 2% of

the women who develop prolapse are nulliparous; the latter have a history of long duration of physical labour of longstanding increased intraabdominal pressure. Genital prolapse can occur following gynaecologic surgery, eg., radical hysterectomy, radical vulvectomy, and retropubic suspension of the urethrovesical junction (Nichols & Randall, 1976). There are individual and racial differences in the size and shape of the pelvis and the quality of the connective tissues. Genital prolapse is less frequent in blacks and Asians than in whites (Geldenhuys, 1951; Van Dongen, 1981; Zacharin, 1980). The com-

plex nature of the problem of prolapse is evident from the fact that more than a dozen types of operations are devised to cure this condition. In fact, no subject has evoked more discussions and disagreements in gynaecological circles than "the surgical treatment of pelvic relaxation", doubly so in the treatment of prolapse in the childbearing age of a woman who has not completed her family. This study was carried out in childbearing women to highlight the very real problems of management of prolapse, in this age group of patients, such that their future childbearing functions are unimpaired by the operation performed for the treatment of the condition. To give the patient a normal menstrual function and to retain her future capability of bearing term pregnancies and to enable her to have a normal labour and childbirth is the vital aim of the treatment. Sterilisation along with repair was also performed for those who had completed their family and had more than two surviving children.

MATERIAL AND METHODS

Our series consists of 78 patients with pelvic relaxation in childbearing age group admitted and operated at the Lokmanya Tilak Municipal General Hospital, Sion, Bombay over a period of 2 years; January 1988 to December 1989. Detailed history of every patient was obtained, with special reference to family history of prolapse and any condition giving rise to increased intraabdominal pressure. A thorough clinical examination was done. Routine laboratory and radiological investigations were carried out; to determine, hepatic, renal, cardiac and the pulmonary status of the patient. The various operations done, the complications and followup complete our study.

OBSERVATIONS & ANALYSIS

During the study period, there were a total of 3035 gynaecological admissions in our institution. Out of these 690 operations were performed for pelvic relaxation (22.73%). 78(11.30%) of these

operations were performed in the childbearing age group. Six types of conservative prolapse surgery was done at our institution; Fothergill's operation, Shirodkar's uterosacral advancement with A-repair, Purandare's abdominal cervicopexy, Shirodkar's abdominal sling operation, Khanna's sling operation and Colporrhaphy plus posterior colpoperineorrhaphy. Vaginal tubal ligation was done only in two patients with anterior colporrhaphy and posterior colpoperineorrhaphy. Table I shows us the types of conservative operations done for pelvic relax-

TABLE I

Conservative operations for pelvic relaxation

Types of Operation	No. of cases	%
Fothergill's operation	20	25.64%
Shirodkar's uterosacral advancement with A-repair	19	24.35%
Purandare's cervicopexy	8	10.25%
Shirodkar's Abdominal Sling	25	32.05%
Khanna's Sling	3	3.84%
Anterior Colporrhaphy & posterior Colpoperineorrhaphy	3	3.84%
Total	78	

ation. From Table II it is evident that 46 cases belonged to the age group 26-30 years and 61 cases were below the age of 30 years. About 80% of patients were from the lower socioeconomic strata of society. Para 1 or para 2 formed 85.89% of cases, but primipara alone accounted for 47 cases (60.25%) (Table III). All 78 patients presented with the chief complaint of something coming out per vaginum. 46.15% patients complained of leucorrhoea while 40(51.28%) patients complained of backache (Table IV). De-

TABLE II
Conservative operations & age groups

Type of operation	Age in years				Total
	<20 yrs	20-25 yrs	26-30 yrs	>30 yrs	
Fothergill's operation	-	2 (10.00%)	9 (45.00%)	9 (45.00%)	20
Shirodkar's uterosacral advancement	-	5 (26.32%)	14 (73.68%)	-	19
Purandare's cervicopexy	-	2 (25.00%)	6 (75.00%)	-	8
Shirodkar's Sling	1 (4%)	1 (04.00%)	15 (60.00%)	8 (32.00%)	25
Khanna's Sling	-	2 (66.66%)	1 (33.33%)	-	3
A-P Repair	-	2 (66.66%)	1 (33.33%)	-	3
Total	1	14	46	17	78

TABLE III
Parity and conservative operations

Type of operation	Nullipara	Para1	Para2	Para3 or>	Total
Fothergill's operatin	-	10 (50.00%)	6 (30.00%)	4 (20.00%)	20
Shirodkar's Uterosacral advancement	-	15 (78.94%)	4 (21.05%)	-	19
Purandare's Cervicopexy	-	3 (37.50%)	2 (25.00%)	3 (37.50%)	8
Shirodkar's Sling	3 (12.00%)	15 (60.00%)	6 (24.00%)	1 (04.00%)	25
Khanna's Sling	-	3 (100.00%)	-	-	3
A - P Repair	-	1 (33.33%)	2 (66.66%)	-	3
Total	3 (03.84%)	47 (60.25%)	20 (25.64%)	8 (10.25%)	78

TABLE IV
Symptomatology

No.	Symptoms	Before operation	After operation
1.	Something coming out per vaginum (SCOPV)	78 (100.00%)	0 (00.00%)
2.	Discharge	36 (46.15%)	20 (25.64%)
3.	Backache	40 (51.28%)	16 (20.51%)
4.	Infertility	3 (03.84%)	3 (03.84%)
5.	Irregular periods	6 (07.69%)	4 (05.12%)
6.	Urinary complaints	2 (02.56%)	0 (00.00%)

TABLE V
Post-Operative Complications

No.	Complications	No. of Patients	Incidence
1.	Haemorrhage (secondary)	8	(10.25%)
2.	Pyrexia	13	(16.66%)
3.	Vomiting	5	(06.41%)
4.	Thrombosis	0	(00.00%)
5.	Infection of wound	5	(06.41%)
6.	Psoas spasm	1	(01.28%)
7.	Intestinal obstruction	0	(00.00%)
8.	Spinal Headache	6	(07.69%)
9.	Urinary tract infection	7	(08.97%)

gree of uterine descent was considered according to Shaw's (1933) classification. 3(3.84%) Patients presented only with a cystocele plus rectocele. 65(83.33%) cases had a third degree uterine descent while 2 and 8 patients had a first and second degree descent respectively. Elongation of cervix was considered if the total uterocervical length was more than 3.5 inches. 55(70.51%) patients had a normal uterocervical length. Hypertrophied, eroded cervix was found

in 8(10.25%) of cases. Cervices which were chronically diseased were selected for the Fothergill's (1913) operation. Routine preoperative orders were followed and patient posted for appropriate surgery. There were no intraoperative complications. Table V elucidates the various post-operative complications encountered in our study. No patient had primary haemorrhage. 8 patients (10.25%) required tight packing due to secondary haemorrhage.

13(16.66%) cases had post-operative pyrexia. 1(1.28%) patient had pain in the left leg, following abdominal sling operation. Anti-inflammatory analgesics were given for seven days and pain subsided. A follow up was carried out by inquiring about 1) the relief of symptoms 2) checking for anatomical correction of prolapse 3) effect of operation on reproductive function. Table IV shows comparison of relief of symptoms post-operatively after 6 months. 100% of patients had relief from their chief complaint (SCOPV) upto a period of 6 months. 12(15.38%) patients had recurrence of minimum prolapse after one year. These patients were from the Fothergill's series (8) and Cervicopexy series (4). Thus there was a 40% recurrence rate for patients undergoing Fothergill's operation as compared to 6.91% in Fothergill's (1913) series and 3% in Hunter's (1957) series. Similarly there was a 50% recurrence in patients who had undergone a cervicopexy as compared to 5.91% recurrence in Purandare's (1966) series. 3 patients from the cervicopexy operation group in our study had recurrence after vaginal deliveries at term within a year of the operation.

DISCUSSION

The operative treatment of pelvic relaxation in young women in childbearing age group has two important factors: 1) repair of prolapse, such that future childbearing is not jeopardised 2) recurrence of prolapse following a vaginal delivery. Anterior colporrhaphy is designed to cure cystocele and urethrocele while colpoperineorrhaphy lengthens the vagina and shortens the perineum. Repair of posterior vaginal wall and perineum is not necessary in at least 50% of operations of prolapse as said by Jeffcoate (1975). Fothergill's (1913) repair gives good correction anatomically but sometimes the cervix is found to be very irregular and flushed with the vault. When the cervix is elongated, lacerated, eroded hypertrophied it presents a difficult problem especially in young women who are anxious to retain childbearing function. In these cases, re-

pair cannot be satisfactorily carried out without amputation of the cervix and thus Fothergill's operation is the operation of choice. At the time of a uterosacral advancement (Shirodkar, 1960) an enterocele is dealt with at the same time as closure of pouch of Douglas. As cervicopexy does not tackle the enterocele, the existing enterocele should be obliterated by other procedures like the Moschkowitz (1972) procedure. In the nullipara, who have not completed their family, there is usually congenital weakness of the ligaments and hence abdominal operations like the Shirodkar's (1960) sling operation are the procedures of choice. In our series Shirodkar's (1960) sling was the most popular operation and is giving very good results. Vikaykar (1974) has studied 35 patients with abdominal sling operation done, who were pregnant then. All patients had full term normal deliveries. There was no abortion, preterm delivery or operative delivery.

Prolonged labour and high forceps delivery, particularly if prolonged traction is required, have always been reasonably blamed as aetiological factors in the development of pelvic relaxation. Recent electrophysiological tests have shown the underlying functional abnormality in ano-rectal incompetence to be weakness of the ano-rectal sphincter and pelvic floor muscles due to partial chronic denervation of these muscles (Swash, 1985). It has further been shown by Snooks et al (1984), that obstetric injury can be implicated in both ano-rectal and urinary incontinence, and they showed that vaginal delivery, but not caesarean section, can result in damage to pudendal nerves. The pudendal nerve terminal motor latency (PNTML) & the external and sphincter muscle fibre density (FD) were increased in multipara, women delivered with forceps and women having a prolonged second stage of labour. Although these studies were mainly carried out to investigate the aetiology of idiopathic ano-rectal incontinence, there is obviously a correlation with subsequent risk of uterovaginal prolapse. It is hoped that we will see fewer prolapses as the years go by, with a tendency to

shorter labours, use of partograms augmentation of labour (Duignan, 1985) and smaller family size, combined with improvements in general health and antenatal/postnatal exercises. The exercises described by Mandelstan (1978), which essentially produce lower vaginal tightening, should be carried out for 6 weeks postnatally.

CONCLUSION

At the present time, a diversity of operative techniques are available for treatment of pelvic relaxation. Every surgeon has his favourite methods. But the danger of regarding those methods as right and all others as wrong must be guarded against. "We must remember that the great majority methods and technical devices blossomed for a time only to fade away in limbo of oblivion. There have been divergences from the direct line of evolution. Our predecessors and we ourselves have proved all things and have held fast for the most part only that which is good. Thus we can omit references to the greater part of the work done and most of what has been written because

they have led nowhere, and their main use has been to show how things should not be done." (William Edward Fothergill, 1913).

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