



STUDY OF CLINICAL PRESENTATION, RISK FACTORS AND RESULTS OF SURGERY IN PELVIC ORGAN PROLAPSE IN TRIBAL POPULATION OF SOUTH RAJASTHAN

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ABSTRACT Pelvic organ prolapse in rural and tribal population is major health disability in perimenopausal and post menopausal women(1).The disorder accounts for 20% of women waiting for major gynaecological surgery.(2) The Prevalence of pelvic floor dysfunction was reported to be 21% with 19.02% of the women experiencing urinary incontinence (3) Present study has been conducted on 1267 patients who have undergone vaginal hysterectomy with pelvic floor repair at PIMS UMARDA UDAIPUR in the last three years. Age, parity, low socioeconomic status, anemia, repeated vaginal deliveries, squatting all day chronic cough and manual labor and strenuous farming have been major causes. Vaginal hysterectomy with pelvic floor repair treats 90% of the disability. Aim of present study is to study causes suggest preventive steps and to evaluate the results of surgery

KEYWORDS : Urinary incontinence, Pelvic floor dysfunction, Pelvic organ prolapsed, utero vaginal prolapse, cystocele, rectocele, enterocele, pelvic floor repair, vaginal hysterectomy

INTRODUCTION

Pelvic Floor Dysfunction including pelvic organ prolapse is one of the largest unaddressed issues in women's health care today (4). It is common and undermines the quality of life (5). Patients with pelvic floor dysfunction usually present with symptoms of incontinence which can be either urinary or anal, pelvic organ prolapse or dysfunctional bowel. It is rarely life threatening, but the symptoms can be embarrassing and, if left untreated, it can lead to social isolation, sexual inhibition, restricted employment and leisure opportunities and potential loss of independence. The women consider pelvic floor dysfunction as a normal part of the aging process and not as a disease/disorder and this is one of the reasons for not seeking medical treatment. The other reasons for non-consultation are fear of hospital visits, investigations and surgeries, lack of money/time, shyness to report issues related to reproductive system, lack of female doctors in the rural setup and dependency on their husband for treatment in terms of permission, escort and finance (6)

Uterine-prolapse is the herniation of the uterus into or beyond the vagina as a result of failure of the ligamentous and fascial supports. It often coexists with prolapse of the vaginal walls, involving the bladder or rectum(9) The Oxford Family Planning Association study reveals Level 1: The cardinal-uterosacral ligament complex provides apical attachment of the uterus and vaginal vault to the bony sacrum. Uterine prolapse occurs when the cardinal-uterosacral ligament complex breaks or is attenuated. Level 2: The arcus tendineous fascia pelvis and the fascia overlying the levator ani muscles provide support to the middle part of the vagina. Level 3: The urogenital diaphragm and the perineal body provide support to the lower part of the vagina.(7) the risk factors include Older age, Race, Family history, Increased body mass index, Higher parity, Vaginal delivery Constipation Intrapartum variables (macrosomia, long second stage of labour, episiotomy, epidural analgesia) Increased abdominal pressure and Menopause. Although vaginal delivery is clearly associated, specific obstetric risk factors remain controversial. Macrosomia, prolonged second stage of labour, episiotomy, anal sphincter injury, epidural analgesia, and the use of forceps and oxytocin have all been proposed as risk factors but have not been proved (8). Conservative treatment includes Pelvic floor muscle training and vaginal pessary. Definitive surgery is vaginal hysterectomy with pelvic floor repair (9)

MATERIAL AND METHODS

Present study has been undertaken to determine the predisposing factors in development of pelvic organ prolapse and to suggest

preventive measures. Further it is aimed at analysing the results of surgery. Study has been carried out at PACIFIC INSTITUTE OF MEDICAL SCIENCES UMARDA UDAIPUR RAJASTHAN. Maximum patients are tribals of south rajasthan and are very poor and malnourished. these women are married at early age have repeated pregnancies and vaginal deliveries by untrained dias putting lots of pressure no episiotomy .They usually squat all day and for toilets. They suffer from chronic cough due to smoke in kitchen OR bidi smoking and high prevalence of tuberculosis. They can easily hide prolapsed in loose clothings. Period of study has been 2014 to 2017. Maternal age, parity, education, socio-economic status, type of delivery was in recorded. Pre-existing maternal disease, chronic cough anemia, was recorded. Maternal weight obstetric complications, tobacco use were recorded. Symptoms are recorded. Sensation of a bulge or protrusion seeing or feeling a bulge Pressure AND Heaviness Urinary symptoms include Incontinence, frequency, or urgency. There is Weak or prolonged urinary stream and Feeling of incomplete emptying. Manual reduction of prolapse is needed to start or complete voiding ("digitation") Change of position needed to start or complete voiding. Bowel symptoms include, Incontinence of flatus, or liquid or solid stool Feeling of incomplete emptying, Straining during defecation and Digital evacuation needed to complete defecation. Splinting (pushing on or around the vagina or perineum) needed to start or complete defecation ("digitation") Sexual symptoms include Dyspareunia (painful or difficult intercourse) Lack of sensation. Examination includes local, per speculum and per vaginal examination to degree of prolapsed. Any bleeding or discharge per vagina were recorded. General examination includes weight, anemia and blood pressure. Laboratory studies, hemoglobin, leukocyte count, blood sugar, urea, keratinize; liver enzymes, urine albumin and sugar were recorded. Imaging studies, x-ray chest and ultrasonography were recorded. A pelvic examination should be done (using a Sim's single bladed speculum) to define the extent of the prolapse and establish the compartments of the vagina affected (anterior, posterior, or apical). The patient should be at rest and straining during a Valsalva manoeuvre. The oestrogen status of the tissues (signs of vaginal atrophy) and the size and mobility of the uterus and adnexae should be assessed. Stage 0: No prolapsed Stage I: The most distal portion of the prolapse is >1 cm above the level of the hymen Stage II: The most distal portion of the prolapse is ≤1 cm proximal or distal to the hymen Stage III: The most distal portion of the prolapse is >1 cm below the hymen but protrudes no further than 2 cm less than the total length of the vagina Stage IV: Complete eversion of the vagina They were followed post operatively with regard to symptom relief and anatomical correction was analysed after eight weeks and at 6 months

OBSERVATIONS**Table 1: Maternal Age distribution**

s.no	Age in years	No of patients	percentage
1	Less than 30	12	00.95
2	30- 40	57	4.50
3	40-50	210	16.57
4	50-60	534	42.15
5	60 and more	454	35.83
		1267	100

Table 2 Maternal Parity distribution

s. no.	Parity	Number	Percentage
1	0	18	1.43
2	1	27	2.14
3	2	218	17.20
4	3	516	40.72
5	4	432	34.09
6	5	56	4.42
		1267	100

Table 3: Education and socio economic status and occupation distribution

	Education		
1	uneducated	1151	90.84
2	Class 5 to class 10	88	6.95
3	More than class 10	28	2.21
	Socio-econ class		
1	Very low	1035	81.75
2	low	232	18.25
	OCCUPATION		
1	farmer	467	36.86
2	Manual labor	540	42.63
3	House wife	235	18.54
4	Other- teacher, clerk	25	1.97

Table 4: Risk factors

S.no.	Maternal risk factors	number	percentage
1	Mode of delivery		
	vaginal	1257	99.21
	Caesarean	10	00.79
2	Anemia		
	Mild 8-10 gm%	602	47.57
	Moderate 6- 8 gm%	498	39.30
	Severe 6gm%& less	167	13.13
3	Degree of prolapse		
	first	115	09.05
	second	386	30.45
	third	766	60.50
	Urinary incontinence	352	27.80
4	Results of surgery relief		
	protrusion	1216	95.97
	stress urinary incontinence	988	77.96
	Dysurea and low backache	810	63.93
	Resumption of sexual activity	658	51.94

RESULTS

out of total 1267 cases, 454(35.83%) were 60 years or more in age,534(42.83%) were 50-60years of age,210 (16.57%) were 40-50 years of age, 57(4.50%) were30-40 years of age, 12(00.95%) were less than 30 years of age. 18(1.43%) were nullipara,27(2.14) were para1, 218(17.20%) were para2, 516 (40.72%) were para3, 432(34.09%) were para4, 56(4.42%) were para5 and above. 1151(99.84%) were uneducated or up to 4standard, 88(6.95%) were5-10 standard, 28(2.21%) were educated more than 10 standard, 1035(81.75%) were very low socioeconomic status and232 (18.25%) were from low socio economic status.467 (36.86%) were farmers, 540 (42.63%) manual labor, 235(18.54%) were house wife and 25 (1.97%) were sedentary workers. 1257 (99.21%) had multiple vaginal deliveries at home or hospitals, 10 (00.79%) had 1-2 caesarean deliveries.602(47.57%) had mild anemia, 498(39.30%) had moderately severe anemia and167(13.13% had severe anemia.115(9.05% had first degree prolapsed, 386(30.45%) had second degree prolapsed and 766(60.50%) had third degree of prolapsed. 352(27.80 % had associated urinary incontinence. Results of surgery followup 8-10 weeks shows, 1216(95.97%) relief from protrusion, cystocele, rectocele, enterocele and prolapsed uterus. stress urinary incontinence

was relieved in 988(77.96%) cases. Dysurea and low backache was relieved in 810(63.935 %) cases, 658(51.94%) cases resumed their sexual activities.

DISCUSSION

Present study has been conducted on 1267 patients who have undergone vaginal hysterectomy with pelvic floor repair at PIMS UMARDA UDAIPUR in the last three years.988(77.97%) patients have been above 50 years of age and12 (00.95%) have been less than 30 years of age. 1004(79.24%) have been para three or more .1151 (99.84%) were uneducated or up to 4 standard,1035(81.75%) were from low socio economic status, 1007(79.47%)have been manual labors and farmers .1257(99.21%) had multiple vaginal deliveries. 665 (52.48%) had moderate to severe anemia.

766(60.50%) had third degree of prolapsed and 352(27.78%) had associated urinary incontinence. All these patients were followed up post operatively and were detected to be fully cured of protrusion. Almost 80% got relieved of urinary symptoms where as relief from dysurea low backache and resumption of sexual activities were 50%to 60 % Other studies have been more or less on the similar observations .Overall, 21.01% women reported having symptoms of prolapsed of pelvic organ, at least 1 type of pelvic floor dysfunction being urinary incontinence and pelvic organ prolapse. Nineteen percent of the women experienced urinary incontinence. Type of delivery and number of children were important factors. (10). as the age advanced the likelihood of developing prolapse also increased. Housewives and semiskilled workers were less likely to develop symptoms of prolapsed as compared to the women with other types of occupation. Skilled workers were two times more likely to develop prolapse and semiskilled workers were three times more likely to develop prolapse than the housewives. Women with urinary incontinence during pregnancy which disappeared soon after delivery were two times more likely to develop prolapse than the women without these symptoms. (11) Prevalence studies in India have been conducted in the context of either incontinence (urinary or anal) or prolapse .The reported prevalence of the urinary incontinence across India ranges between 10-67.9%. The prevalence of self-reported uterine prolapse is 17.6% and anal incontinence is 1.3% (12).The relationship between age, parity, mode of delivery, occupation, education, presence of symptom of urinary incontinence during pregnancy which disappeared after the delivery and pelvic floor dysfunction has been studied extensively and gives us a varied result. In various studies, analysis of these factors has demonstrated that advancing age, occupation and presence of symptom of urinary incontinence during pregnancy which disappeared after the delivery is a major factor in developing pelvic floor dysfunction as stated by the previous studies. As the age advances, the prevalence of pelvic floor dysfunction also increased which has been reported in national as well as international studies (13). Occupation was also found to be associated with pelvic floor dysfunction in this study. Since the study sample mainly consisted of the rural population, the type of activities performed [repeated bending and lifting weights, activities in squatting position (washing clothes, vessels, cleaning the house)] by these women could be attributed as a factor for the development of pelvic floor dysfunction. Woodman et al. reported that women who worked as laborers or factory workers had significantly elevated rates of severe Pelvic organ prolapsed compared with women with more sedentary jobs (14).

Certain modification like sitting on a stool instead of using squatting position, using of appropriate ergonomics while lifting heavy weights in the workplace may be helpful in preventing the development of Pelvic floor defects. Practicing and adherence of pelvic floor muscle exercise in the antenatal period and continuation of this exercise in postnatal period should be emphasized. (15)

CONCLUSION:

Prolonged labor and vaginal delivery involving sphincter and vaginal tear, Squatting and bending and lifting weight and chronic cough are the main determinants of uterovaginal prolapse. These are modifiable risk factors and warrant health awareness programs. Vaginal hysterectomy with pelvic floor repair relieves ninety percent of disability.

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