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SACROHYSTEROPEXY WITH PROLENE – I FOR THE MANAGEMENT OF UTEROVAGINAL PROLAPSE

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ABSTRACT

A descriptive study was carried out in the gynae department of Military hospital Rawalpindi to observe the results of sacrohysteropexy using Prolene-1 suture in patiens with major uterovaginal prolapse. The duration of study was from January to August 2004. Patients with major uterovaginal prolapse were selected by convenient sampling and underwent sacrohysteropexy using Prolene-1 suture to anchor the uterus to the anterior longitudinal ligament of first or second sacral vertebra in a tension free fashion. All operations were performed by the same surgeon. The study included 30 patients who underwent surgery. The results revealed both subjective and objective improvement of symptoms in short term outcome. None of the patients had any intra or post operative complications. None of the patients required any blood transfusion. The duration of the surgery was short ranging from 15- 20 minutes. We concluded the sacrohysteropexy using prolene-l suture an effective, simple and safe surgical procedure for the management of major prolapse as an alternative to vaginal hysterectomy especiallyPelvic organespecially in elderly patients where longer surgical procedures need to be avoided.

Keywords: Pelvic organ prolapse, sacrohysteropexy.

INTRODUCTION

As the female population age due to increased life expectancy, more women may well live into their ninth decades and require treatment for uterovaginal or post hysterectomy vaginal vault prolapse [1].

The incidence of genital prolapse is difficult to determine, as many women do not seek medical advice. It has been estimated that half of parous women lose pelvic floor support, resulting in some degree of prolapse, and that of these women 10-20% seek medical care [2,3]. The life time risk of undergoing an operation for prolapse or incontinence by the age of 80 years is 11%. Reoperation is required in 29% of cases and the time interval reduces between each successive operation [4].

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The indication for surgical correction of uterine prolapse is failure of conservative treatment in a healthy young multiparous woman or a woman with anomaly (e.g. bladder exstrophy), where child bearing is incomplete, where a patient with a significant uterine prolapse refuses hysterectomy and wishes to retain the uterus.

The purpose of pelvic reconstructive procedures is to correct prolapse, preserve coital function and maintain urinary and faecal continence [5].

Operative procedures for uterine prolapse include vaginal hysterectomy which is the most commonly performed procedure. Other procedures include fixation of the uterus to the undersurface of the abdominal wall, transvaginal uterosacral ligament fixation to the sacrospinous ligament [6], laparoscopic uterine suspension by suturing the round ligaments to the rectus sheath [7].

Attachment of the uterus to the anterior longitudinal ligament of the sacrum was described for the first time by Arthure and Savage [8].

Sacrohysteropexy involves attaching the uterus to the ligament using a y-shaped Teflon mesh as a graft [5]. Other grafts include harvested fascia lata, abdominal fascia, dura mater, Marlex, Prolene, gore-Tex, Mersilene or cadaveric fascia lata [9,10].

The purpose of this article was to analyse the results of sacrohysteropexy using prolene-1.

MATERIAL AND METHODS

In this article we report the study of 25 women who underwent sacrohysteropexy using Prolene-1.

This was a descriptive study. The duration of the study was from January 2004 to August 2004.

30 women were selected by convenient sampling. All patients had major uterine prolapse, grade II or more did not want to undergo hysterectomy, or were desirous of further childbearing. They were evaluated by physical examination, pelvic examination and appropriate urodynamic studies where indicated. None of the patients had incontinence even when prolapse was reduced. Prolapse was taken as grade I where the leading edge of the prolapse did not descend below 1 cm above the hymenal ring. Grade II, when the leading edge of prolapse extends from 1 cm above to 1 cm below the hymenal ring, Grade III, 1 cm beyond the hymenal ring but without complete vaginal eversion and Grade IV where vagina is completely everted [11].

Patients were admitted after thorough pre-operative assessment and evaluation. None of the patients had haemoglobin of less than 11.0 gm/dl. Three patients had completed childbearing but wanted to retain their uterus. 3 patients had grave IV prolapse while 7 had grade II-III prolapse.

Seventeen patients were menopausal but had never taken hormone replacement therapy (HRT).

Six patients of the group were sexually active.

Patients with euteroceles were not included in the group. All patients were counseled preoperatively and informed consent obtained for the procedure.

Operative Technique

Sacrohysteropexy was performed under general or spinal anesthesia. Patients were put on cephalosporin intravenously 1 gm 12 hourly and infusion metronidazole 500mg IV 8 hourly on the morning of operation and the antibiotic cover was continued into the postoperative period for 48 hours.

The patients were catheterized and the catheter retained. They were put in supine Trendelenberg position and Pfannensteil incision performed. On opening the peritoneal cavity, an abdominal and pelvic exploration was performed. The intestines were packed with an abdominal pack and the sigmoid colon displaced with Dever`s retractor. The peritoneum over the anterior surface of sacral vertebra 1 or 2 was incised and this was continued down to create peritoneal flaps. Using Prolene -1 suture and taking care not to injure the vessels and nerves, a stitch was passed through the anterior longitudinal ligament and another stitch at the level of the uterine isthmus was used to anchor the uterus to the anterior longitudinal ligament. The sutures were covered with peritoneal flaps. Pelvic examination was performed after the procedure to asses whether cystocele or the rectocele needed correction. All operations were performed by the same surgeon.

STATISTICAL ANALYSIS

Percentages were used to describe the results using SPSS version 10.0.

RESULTS

The patients included in the group had an age range of 42-68 (average 54.50). All patients had cystocele where as rectocele was present in 4 10 cases (table). The duration of the procedure ranged from 15- 20 minutes. Examination under anesthesia after the procedure revealed that no pelvic repair procedure was required for the correction of cystocele and rectocele. For the sexually active, the vaginal length had not been compromised. Intraoperative blood loss was minimal ranging from 50-100ml (av:57.4ml). Postoperatively the patients had subjective as well as objective improvement of symptoms. None of the patients developed any intra or postoperative complications. There was no case of urinary retention or voiding difficulty. There was no case of wound infection. All of the patients had normal bowel movements by the 3rd post operative day. The hospital stay ranged from 3-5 days (av: 4 days). Muchin terms of duration of surgery, used (-m) and hospital stays.

Table: Characteristics of patients treated by sacrohysteropexy with prolene-I

	No. of patients n=25	%age
Menopausal		
Patients on HRT	17	56
Grade III	nil	0
prolapse	7	23
Grade IV	3	28
prolapse	25	100
Cystocele	10	33
Rectocele	nil	0
Enterocele		

DISCUSSION

There has been a trend towards the surgical management of uterovaginal prolapse with more emphasis on "pelvic reconstructive surgery." This is in keeping with the view that prolapse results from breaks in the fascia which should be identified and repaired [9,12].

Vaginal hysterectomy with pelvic floor repair is regarded as the standard operation for uterovaginal prolapse. Women have been recommended to complete child bearing before the surgery. Manchester repair (cervical amputation) is advised in younger patients who want to retain their fertility. More recently vaginal hysterectomy has been questioned and abdominal sacrohysteropexy or vaginal sacrospinous fixation is now being advocated.

The incidence of vault prolapse after vaginal hysterectomy for prolapse also increases and has been quoted as 12% as compared to 2% when the indication for hysterectomy was not prolapse [9].

In a study conducted by Elad Leron and Stuart L. Stanton [5], sacrohysteropexy was performed using Teflon mesh in 13 cases. They were followed up for a period of 16 months. They did not report any intra and post operative complications. They reported this safe and effective surgical procedure especially in the young patients.

Van Lind et al [13] performed abdominal-retro peritoneal sacral genital-colpopexy using the expanded polytetra fluoroethylene soft tissue patch for repair of prolapse in 61 women with a long term follow up with a success rate of 95%.

Our study involved a small group of patients. We have reported the procedure of sacrohysteropexy using Prolene-1 being carried out at our centre. This is a slight variation from the usual method of interposing a mesh between sacrum and the back of the cervix. This procedure however is simpler, easy to perform and has a shorter operation and anesthesia time. The short term outcome has been very successful with zero complication rates and improvement of the symptoms. In addition it is more cost effective as the need for synthetic mesh is avoided and the hospital stay is also reduced.

Cost effectiveness has a significant bearing on the selection of the procedure as grafts material is expensive and adds up to the overall expenditure of the patient, hospital and governments in the long run.

This procedure has the benefit of restoring the anatomy and achieving the normal vaginal axis. The risk of vaginal scarring and sexual dysfunction is also avoided which can especially be troublesome in a sexually active patient.

The use of synthetic non absorbable suture materials like prolene -I can lead to erosion and bowel adhesion and obstruction so it is important that patients are properly counseled before the procedure and long term follow-up continued.

CONCLUSION

The surgical management of uterovaginal prolapse by sacrohysteropexy using prolene suture is a safe, cost effective and simple procedure with minimal complications.

It should be employed more often especially in the elderly patients with major prolapse. In view of recurrences in the form of vault prolapse following vaginal hysterectomy, this procedure is a better option. The added advantage is the avoidance of vaginal shortening and scarring. The long term results need to be evaluated and are awaited.

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