

PRIMARY TREATMENT OF STRESS URINARY INCONTINENCE WITH ANTERIOR COLPORRHAPHY

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SUMMARY

A study of 44 patients was conducted at St. George's Hospital, Bombay, from 1986 to 1990 on patients with complaints of genuine SUI treated surgically with anterior colporrhaphy using No. 1 chronic catgut and followed up for next 2 years. The cure rate at the end of 2 years was 81.8%, with improvement in 11.3%, and failure in 6.9%.

The vaginal repair of SUI is particularly advantageous because of minimal morbidity and post-operative complications as compared to abdominal route.

Few subjects in the field of medicine have received as much attention and polarization of views concerning etiology, diagnosis and treatment, than has the disorder of stress urinary incontinence (SUI). There have been many new insights made into the pathophysiology of SUI because of the availability of new instrumentation for urodynamic testing. However, the knowledge of instrumentation does not assure the clinician of the most effective surgical approach to the correction of SUI. There is still no single operative procedure that has a more successful outcome for the condition.

AIMS AND OBJECTIVES

A study of 44 women with complaints of genuine SUI, who were operated by anterior colporrhaphy with plication of pubo-cervical fascia on the lateral sides and beneath the urethra using No. 1 chronic catgut was done and the patients were followed up for at least 2 years. According to Beck (1979) anterior colporrhaphy when properly performed is an effective primary procedure for treating SUI as there is minimal morbidity and short operating time.

MATERIALS AND METHODS

From 1986 to 1990, 44 consecutive patients with complaints of genuine SUI were treated

surgically with anterior colporrhaphy using No. 1 chromic catgut, and continuous drainage of bladder by transurethral catheter post-operatively for at least 5 days. All patients had demonstrable anatomic or pressure equilibration SUI which interfered significantly with their daily routine.

History suggestive of urinary tract infection was asked for. History suggestive of detrusor dyssynergia such as frequency, urgency, urge incontinence, nocturia, enuresis was ruled out. Careful examination of anterior vaginal wall and uterine supports was done in dorsal position. Immediate loss of urine from a full bladder with coughing or the Valsalva's manoeuvre is clearly demonstrable of an anatomic defect. The Bombay Marshall test and Q tip test were done as a routine.

Examination of sacral reflexes for tonicity of anal sphincter was done routinely. Assessment of residual urine, bladder capacity and urine culture was done. Intraurethral and intravesical pressure studies were not done due to high cost of investigations. Patients with obstructive airway disease or constipation were treated appropriately before surgery.

FOLLOW-UP

The patients were followed up for 6 weeks, 6 months, 1 year and 2 years following

surgery by filling the bladder to the point at which the patient felt the need to void. The patient was then required to perform repeated coughing in lithotomy and standing position and heel-bouncing. If patient lost no urine in these circumstances, she was considered surgically cured. If the patient was satisfied with the result, or the urine lost was objectively less than that before surgery she was considered improved, otherwise she was considered failure.

RESULTS

Profile of Patient with SUI.

1. No. of Patients : 44
2. Mean age : 42
(35-53) years
3. Mean parity : 3 (1-6)
4. Symptoms of prolapse : 35
and/or posterior
relaxation
5. Other operative procedures besides SUI
 - a) Vaginal hysterectomy : 33
 - b) Previous total hysterectomy : 3
 - c) Uterus left in situ : 8
 - d) Posterior colpoperineorrhaphy : 38

Table I

Results	Results of follow up			
	No. of patients	6 months	1 year	2 years
Cure	36	40 (90.9%)	38 (86.4%)	36 (81.8%)
Improvement	5	2 (4.55%)	3 (6.8%)	5 (11.3%)
Failure	3	2 (4.55%)	3 (6.8%)	—
Total	44	44	44	41

Results of follow up : (Table I)**Post operative hospitalization :**

No. of post operative days : 6

Mean days of catheter : 4

removal

Post operative complications (n=44)**1) Wound complications :**

Infection at the site in 1 patient (2.2%), Dehiscence Nil (0%), Pyrexia in 5 patients (11.3%), Significant bacteriuria in 8 patients (18%), Enterocoele in 2 patients (4.5%), Vaginal Stenosis Nil (0%).

2. Satisfactory voiding was delayed for more than 7 days in 2 patients (4.5%)

3. Vascular complications Nil (0%).

DISCUSSION

The current technique of vaginal suspension of urethra must include the replacement of posterior urethra to the high retropubic position above the pelvic diaphragm. Funneling of the urethra and involuntary incontinence is prevented by transmission and equalization of the intra-abdominal pressure to the posterior urethra and bladder base.

This has been emphasized by Beck and

Table II**Comparison with other studies**

Study	Year	Procedure	No	% Cure	Minimal follow-up
1. Kaufman	1981	Anterior colporrhaphy	11	100%	1 Year
2. Beck and McCormick	1981	Anterior colporrhaphy	105	80%	2 Years
3. Van Rooyen and Libenberg	1978	Anterior colporrhaphy	102	92%	3 Years
4. Peters and Thorutan	1980	Anterior colporrhaphy	100	90%	5 Years
5. Present study	1992	Anterior colporrhaphy	44	81.3%	2 Years

Table III**Comparison of complication rate with vaginal and abdominal route**

Study	Route	Complication rate
1. Peters and Thornton (1980)	Vaginal	3%
2. Peters and Thornton et al (1984)	Suprapubic	21.7%
3. McDuffie et al (1981)	Suprapubic	7.8%
4. Parnell et al (1982)	Suprapubic	11.4%
5. Present study	Vaginal	2.2%

(Infection at site of operation)

McCormick (1981), Nichols and Randall et al (1976) and Zacharin RF (1980). Beck and McCormick (1981) - have shown a cure rate of 91% by vaginal route with polyglycolic suture and suprapubic catheter drainage.

Comparison with other studies (Table - II and III)

These Tables shows that vaginal repair of SUI is particularly advantageous as compared to the abdominal route, because of minimal morbidity and postoperative complications.

CONCLUSION

When 44 patients of genuine SUI were treated with anterior colporrhaphy and followed up for 2 years, the cure rate was 82%, with major postoperative complication rate of 2%. The cure rate was comparable with that following abdominal route, though slightly less; with far less morbidity and postoperative complications. In the present study, the number of patients is less. However with more number of cases, the cure can be improved with further experience and modification of technique using no. 1

polyglycolic suture.

Thus, Vaginal restoration of pelvic diaphragm and endopelvic fascia combined with repair of anatomic SUI is an effective method of re-establishing urinary control while correcting anatomic defects that are causal to the development of this condition.

ACKNOWLEDGEMENT

We thank the Superintendent of St. George's Hospital for allowing us to publish the Hospital Data.

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