PEREYRA'S TRANS-VAGINAL PROCEDURE : AUTHOR'S* MODIFICATION FOR TREATMENT OF STRESS URINARY INCONTINENCE

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Summary

The treatment of clinical stress urinary incontinence (SUI), is surgical. The most significant advance is the realisation that improper diagnosis of SUI in patients who closely mimic it and are wrongly operated, contributes largely to the group of failed cases.

The present paper summarises 34 patients with a clinical diagnosis of SUI who were subjected to surgery at Dr. R.N. Cooper Hospital, Bombay. 17 cases were done by Senior Author's Modification* (SJP) of Pereyra's method, by the Author himself with a success rate of 94% at the end of a 2 year follow up.

Authors' modification can take care of both types of SUI without anatomical catagorisation. Moreover the procedure is simple with least morbidity and has a good success rate. Since the first attempt at surgical treatment for SUI has the best chance of cure, correct choice of surgical procedure is of great importance.

Introduction

Treatment of clinical stress urinary incontinence is surgical. The most significant advance is the realisation that improper diagnosis of patients who are not actually cases of SUI but closely mimic it and hence get wrontly operated, contributes largely to the group of failed cases. More importantly, better understanding of SUI has resulted from operated cases of SUI either cured or failed with usage of different techniques. Contribution from failed cases has been more significant in this respect.

SUI is an exaggeration of inadequate urinary control in women. The standards of definition of clinical SUI have totally changed in present days, due to participation of women in strenuous activities including sports and those other than social and traditionally domestic activities putting the woman at a higher risk of getting symptomatic SUI, needing priority surgical treatment.

It is therefore important to define clinical SUI as an "ivoluntary loss of urine

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through the intact urethra, incidental to sudden increase in intra-abdominal pressure occuring with sufficient intensity, frequency and volume so as to restrict normal activities and causing social embarassment".

Material and Methods

The present view summarises the study of 34 patients with clinical SUI who are subjected to surgical treatment at the Dr. R.N. Cooper Hospital. These patients were studied over a period of 5 years.

Selection of patients for the surgery was made on the following points:

1. Objectively proved SUI
2. Patient's desire and her practical need to solve the problem.
3. Patient's inability to take care of the problem with voluntary efforts.
4. Patients identified as potential SUI and those having Type III anatomical defect with severe genital prolapse.

The following patients were not selected for surgery:

1. SUI with pregnancy or those desirous of further childbearing in the near future.
2. SUI associated with medical disorders like diabetes, obesity, chronic lung disease.
3. SUI with associated incontinence of other origins: Urge incontinence and detrusor dyssynergia.

The clinical examination, (especially Bonney's neck elevation test) was carried out in all patients. 17 cases were treated by the Author's modification of Pereyra's method by the Author himself and the remaining 17 cases were treated by Kelly's stitch done by various surgeons. The latter group have been included in this study for comparitive purpose. Associated surgery like vaginal/abdominal hysterectomies were also carried out as and when indicated. Intra and post operative morbidity, success rates and long term follow up studies were carried out.

Author's Modification of Pereyra's Method

Though it has been called as Modified Pereyra's method, improvisation is done by only deleting one step of the operation i.e. Kelly's stitch. This has been done by the author routinely in all cases of SUI without catagorising them anatomically and sans regret of failure. A simple straight 11" long needle (16G) is used for passing the catgut or vicryl through it in retrograde fashion instead of the specially devised angled needle with straight stillette used by Pereyra originally.

Observation

The surgery for SUI was carried out by the Author himself in 17 cases by his modification of Pereyra's method. The remaining were done by Kelly's method, by different surgeons.

All these patients were divided into 3 groups of mild, moderate or severe variety of SUI according to the clinical features. (Table I). Table II shows the associated surgery with SUI repair.

TABLE - I
CLINICAL FEATURES

	Degree of SUI		
	No. of cases		
	Mild	Moderate	Severe
Author's modification of Pereyra's method	2	12	3
Kelly's repair	5	11	1

TABLE - II

	Vaginal Hyst.	A.P. repair	Abdominal hyst.
	No. of patients		
Author's modification of Pereyra's method	11	5	1
Kelly's repair	10	7	—

TABLE - III

	Percentage of success rate (%)
Author's modification of Pereyra's method	94
Kelly's repair	62.5

The success rate with Author's repair was 945 whereas with Kelly's repair was 62.5%. One patient with Author's method reported after 6 months with practical success i.e. from a moderate degree of SUI to a mild degree, socially acceptable. One case had persistent post operative urinary retention, the slings were therefore cut and repeat surgery undertaken.

Discussion

Continence of urine in a women is achieved by a pressure differential between the urethra and urinary bladder, maintained even during sudden stress activity. Hence any surgical treatment of SUI must be aimed at the cause which has disturbed the urethrovesical pressure differential, to achieve durable success. As majority of these patients are multiparous, surgical procedure to correct the disturbed an anatomy are the ones commonly required.

The following points must be borne in mind by a surgeon when treating SUI:

1. Correct diagnosis of SUI with its causative pathology and type of anatomical defect present.
2. Clinical demonstration before surgery that correction of disturbed anatomy will relieve SUI. (Bonney's neck Elevation test).

So far as the choice of surgery is concerned, for durable success, the age old dictum is vaginal approach for Type I defect and abdominal approach for Type II defect. Most Gynaecologists prefer Kelly's repair because of its simplicity and minimal morbidity, but this procedure is unable to take care of the group with Type II defect.

Trans-vaginal suspension operations like the Author's modification of Pereyra's operation have all the above mentioned advantages and in addition to them, also can definitely take care of both types of SUI thus the need for anatomical catagorisation is virtually excluded.

A successful operation for SUI is one in which the patient is symptomatically free for at least 2 years after surgery. Minor residual SUI which can be handled without causing any social embarrasment is taken as practically successful. Recurrence of SUI after 2 to 3 years is usually due to gradual and progressive deterioration of supporting tissues or new precipitating factors, and not because of failure of initial operation. The failure of surgically treated cases of SUI are due to incorrect diagnosis, incorrect choice of surgery, technical failure and tissue failure.

The immediate failure rate of Author's modification is less than 2% and long term failure rate and 6% which makes it an ideal surgical method for treating SUI.

Conclusion

Today the trend in incontinence sur-

gery is towards the suprapubic method as the primary procedure, because the first attempt at surgery has the best chance of a cure.

References

1. *Kelly, H.A., Dumm, W.M.: Surgery, Gynec. and Obstet. 46:403, 1928.*
2. *Ball, T.L.: Am. J. Obstet. Gynec. 63:1245, 1952.*
3. *Hodgkinson, C.P.: Am. J. Obstet. Gynec. 65:560, 1953.*
4. *Green, T.H.: Am. J. Obstet. Gynec. 83:5, 1962.*
5. *Pereyra, A.J.: Disorders of the female urethra and urinary incontinence. Edited by W.G. Slate. Baltimore, Williams and Wilkins. pp. 145-147, 1978.*
6. *Pereyra, A.J., Lebherz, T.B., Growdon, W.A., Powers J.A.: Obstet. Gynec. 59:643, 1982.*