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Original Research Article

## Continence outcome following needle less operation (vaginal approach) using indigenous mesh

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### ABSTRACT

**Background:** Economical and accessible non-extensive operation for stress incontinence in women who cannot afford expensive cost of mesh available for mini arc operation and other surgery of incontinences. Inexpensive hernial mesh (Hinglact), commonly available was used after indigenously designing it and placing it without a needle, under the Posterior urethral fascia with a single small vaginal incision.

**Methods:** The present study was conducted on 25 female patients of post-menopausal group who presented with pure stress incontinence complaints. These patients did not have any uterine descent or previous surgery. Indigenously designed hernia mesh used in place of expensive needled Incontinence Meshes available by a single small incision in posterior urethra area.

**Results:** Nearly 75% women with stress Incontinence were relieved of their symptoms with this inexpensive mesh without a needle.

**Conclusions:** Very effective, inexpensive mesh and surgical procedure for poor socio economic, group of women found to relieve significant Incontinent patients compared to commonly used mesh with a needle.

**Keywords:** Incontinence, Mesh, Urinary

### INTRODUCTION

Urinary Incontinency is a condition of involuntary passage of urine on laughing, sneezing and effort. Women continue to suffer in silence, carrying low self-esteem, conscious of uriferous smell due to dribbling 2 fear of leaking anywhere anytime on urge.<sup>1</sup> Apprehensive of extensive surgery and cost involved, many women do not opt for this simple surgery and suffer due to ignorance.<sup>2</sup> The aim of this study was to cut down cost of Mesh and give better results with inexpensive mesh available for hernia (e.g. Hinglact), without needle and to cut down cost of surgery and stay with low complication rates.<sup>3-5</sup>

### METHODS

Retrospective study of stress incontinence surgeries done on 25 women (post-menopausal), complaining of stress incontinence without any uterine descent/previous surgery, in the year March 2014-March 2016. All these patients were from low socio economic group, women who could not afford expensive mesh available in market for stress Incontinence surgery. All pre-operative parameters and investigations were carried out.

This operation involved a post urethral dissection laterally on both sides, enough to place this indigenously designed piece of mesh (Hinglact), transversely as in

miniarc operation, closing the vaginal incision and catheterizing the patient for 3 days.

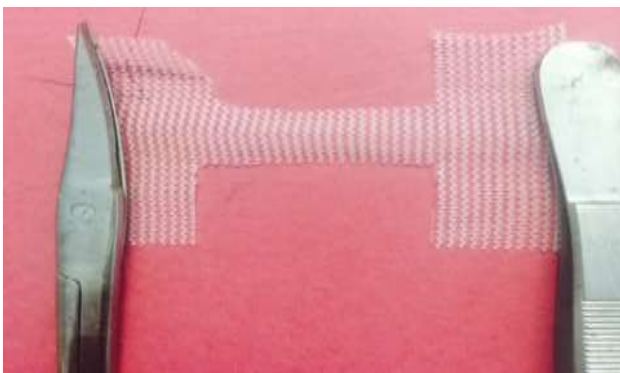
**Follow up**

Patients regularly followed up at 1 week, 4 week, 3 months, 6 months and 12 months interval in OPD regarding status of urinary Incontinence (requiring no pad/security liners). Data collection done and follow up correspondence conducted in accordance with hospitals ethical guidelines.

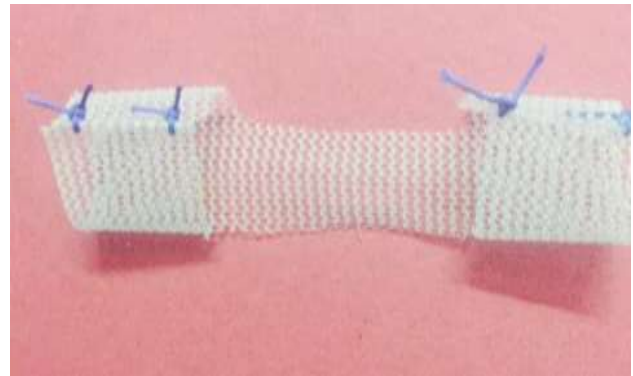
**RESULTS**



**Figure 1: Hernial mesh-Hinglact.**



**Figure 2: Cut in H -shape design.**



**Figure 3: Roll up vertical legs of H and hold them together.**



**Figure 4: Horizontal leg of H to be placed behind postr urethral fascia and rolled edges to be in the peri urethral dissected area.**

- Out of all 25 patients, 16 were dry after 1 week and they were relieved of their symptoms.
- 2 Patients who had complete open bladder neck were benefitted on day 8 and 3 weeks but after one month of these 2 patients complained of wetness again and needed anticholinergic support which decreased wetness to few occasions.
- 1 patient had partial mesh erosion after one month and the mesh was removed.

**Table 1: Distribution of patients according to age groups and postop complaints.**

| Age distribution | No. | Follow up complaints    | Complications        | Complete relief |
|------------------|-----|-------------------------|----------------------|-----------------|
| 45 Yrs-55 Yrs    | 5   | None                    | None                 | 5               |
| 56 Yrs-65 Yrs    | 14  | Only 2 had mild wetness | Mild leak in 1       | 14              |
| >65 Yrs          | 6   | Urge incontinence one   | Erosion of mesh in 1 | 5               |

**DISCUSSION**

Stress Incontinence in females is a very common problem and surgery costs around INR 1,00,000.00, the mesh itself being of INR 35,000.00.<sup>6,7</sup> Lower socio economic patients are not able to afford. This requires low cost

alternatives.<sup>8-10</sup> Indigenously designed piece of mesh cut from ordinary Hinglact mesh placed in post urethral region supporting the fascia and placing it without a needle through a single anterior vaginal wal in cison just beneath the uethra and suture with 3-0 vicryl the vertical legs of H shaped mesh to make both ends circular.<sup>11-14</sup>

The Horizontal bar of H is under the posterior urethra and the vertical rounded legs of H are in periurethral dissected area.<sup>15</sup> Close the vaginal incision by 3-0 vicryl. The results of this surgery are very encouraging, cost effective and easy to afford.

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*Ethical approval: The study was approved by the Institutional Ethics Committee*

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