

USE OF ERBIUM LASER IN VAGINAL ATROPHY AFTER MENOPAUSE

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Introduction

Vaginal atrophy after menopause significantly impairs quality of life, with limited relief from lubricants and unavailability of estrogen cream in Pakistan. Hormone replacement therapy (HRT) is underutilized due to cancer fears. Premature ovarian insufficiency, common in women with PCOS, exacerbates symptoms. This study evaluates the efficacy of erbium vaginal laser in managing vaginal atrophy symptoms, offering a non-invasive solution for this underreported and stigmatized condition.

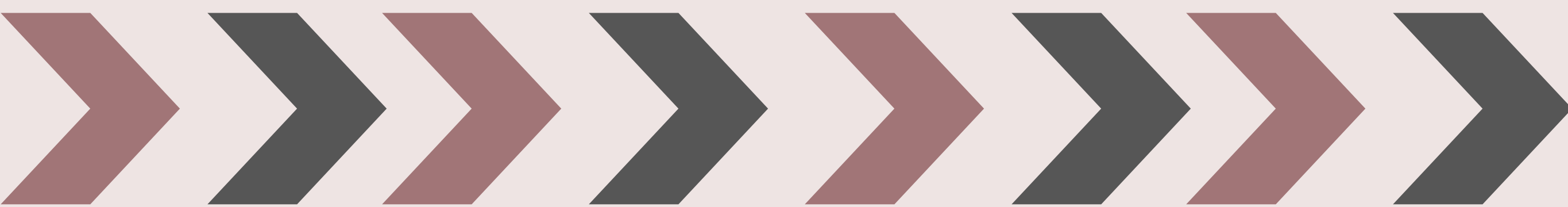
Objective

- To evaluate the efficacy of erbium vaginal laser in improving symptoms of vaginal atrophy (vaginal dryness and dyspareunia) in postmenopausal women.
- To assess the safety and tolerability of erbium vaginal laser treatment in postmenopausal women with vaginal atrophy.
- To compare the outcomes of erbium vaginal laser treatment with conventional treatment options (lubricants and HRT) in terms of symptom relief and quality of life improvement.



Methods

The study was performed on women suffering from vaginal atrophy symptoms due to natural or surgical menopause using Erbium laser (Fotona). The results were assessed using the vaginal health index score (VHS) and visual analogue score (VAS) at **3 months**, one year and again at **18 months** and then at **24 months**. 50 patients were selected after ruling out all contraindications (use of estrogen cream lubricants three months before the start of the study). Women with acute infections, scars, uterovaginal prolapse, and any irregular bleeding were excluded. Post-menopausal women were considered if they had an **FSH of more than 40 or no periods for a year**.



Interventions

- Erbium vaginal laser (3 sessions 4-6 weeks apart) using Fotona machine on factory settings (wavelength of 2940 msec to treat these patients).
- The procedure was performed in OPD settings without anaesthesia
- RenovolaseTM mode was used with a laser spot size of 7mm with a pulse at a frequency of 1.6 Hz and fluence of 6 J/cm². R11 probe is used with angular probe and inserted in speculum in vagina, and three rounds are done followed by treatment of the vestibule using PSO3.

Main Outcome Measure(s)

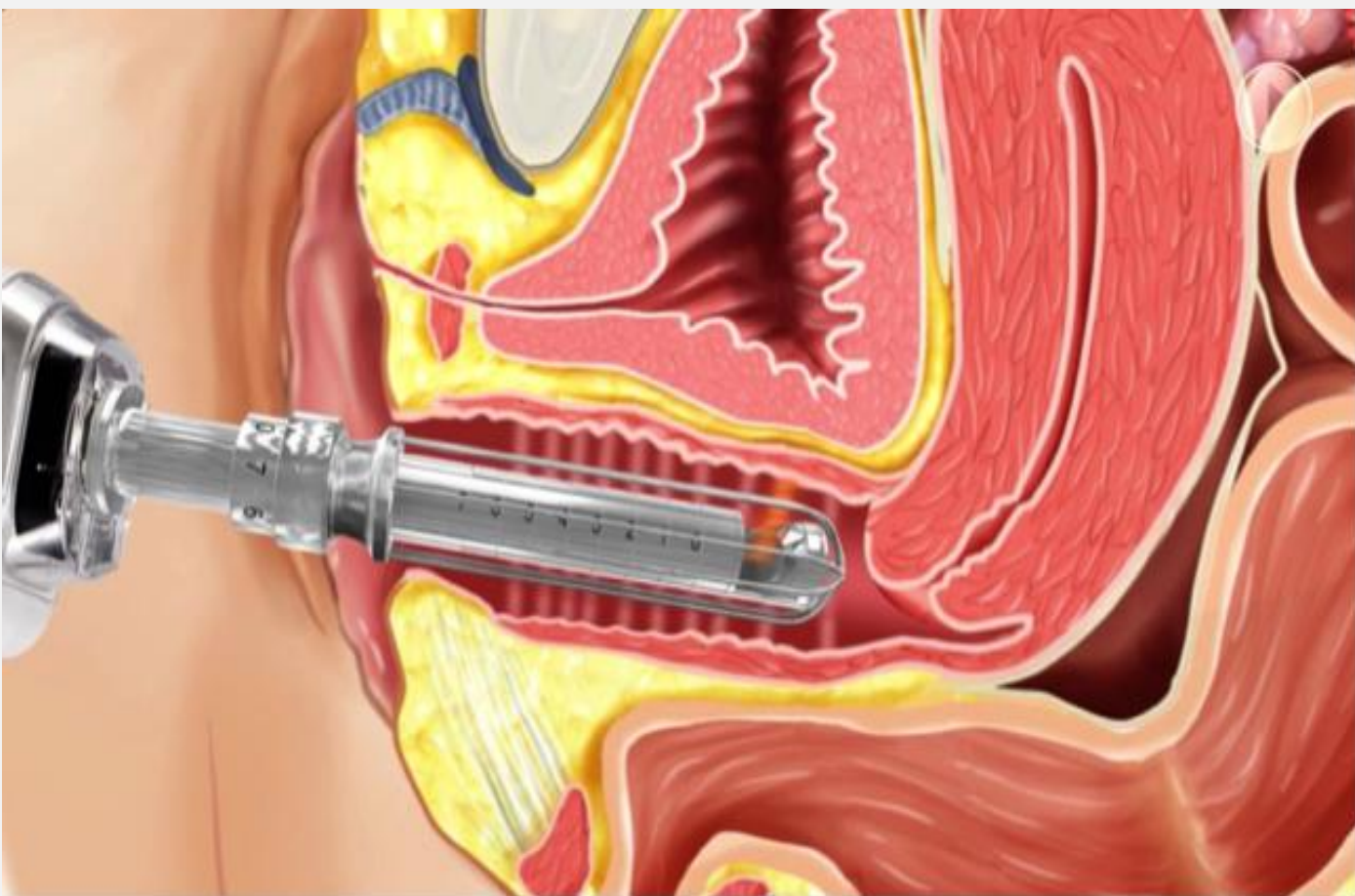
improvement in VHIS and VAS score at 3 months, 12 months, and 18-24 months any side effects faced immediate and long-term.

Design: Prospective Analysis

Results

This was a prospective longitudinal study done on women of postmenopausal status presenting with vaginal atrophy symptoms in the outpatient department of a private medical center. There was a significant decrease in the VAS score ($p < 0.01$) and an increase in the VHIS score ($p < 0.01$) at one year; however, the effects seemed to deteriorate after 18-24 months of follow-up. One patient took only one session and dropped out due to relocation to another country, and two patients did not continue beyond one session due to intolerance to heat and fear of burns. One patient was lost to follow-up.

Time Point (Months)	Average VAS Score (dyspareunia)	Average VAS Score (Atrphy)	Average VHIS Score
0 (before intervention)	8.3	8.4	10.6
3	3.0	3.5	19.0
12	5.6	4.2	18.7
18	6.2	7.0	15.4
24	7.0	8.2	12.3



Conclusion

The results suggest a significant improvement in the improvement of symptoms of vaginal dryness and dyspareunia. However, the results did not last beyond 24 months.

References

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