ORIGINAL ARTICLE

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Comparison of the Effects of Tamarind Seed Extract (Tamarindus Indica L.) with Sertraline in Treating Premature Ejaculation: A Randomized Double-blind Trial

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Abstract

Background: Premature ejaculation (PE) is a prevalent male sexual disorder often untreated due to embarrassment. This study compares the efficacy of tamarind seed extract (Tamarindus indica L.) with sertraline in treating PE. **Materials and Methods:** In this randomized, double-blind, parallel-group trial, 41 men diagnosed with PE at urology and psychiatric clinics in Shiraz, Iran (2023) were enrolled. Participants were randomly assigned to receive either 80 mg tamarind seed extract capsules (Group A, n=20) or 50 mg sertraline tablets (Group B, n=21) daily for 4 weeks. The primary outcome was the Premature Ejaculation Diagnostic Tool (PEDT) score, with secondary outcomes including International Index of Erectile Function (IIEF) scores (erectile function, orgasmic function, sexual desire, intercourse satisfaction, overall satisfaction) and side effects. Data were analyzed using SPSS version 22 with t-tests and ANOVA ($P<0.05$). **Results:** Both treatments significantly improved PEDT scores ($P=0.001$, $\eta_p^2=0.76$, 95% CI for mean difference: [-6.95, -4.95]) and IIEF subscales ($P<0.01$). No significant differences were observed between groups ($P=0.69$, $\eta_p^2=0.10$) or in the time-group interaction ($P=0.42$, $\eta_p^2=0.15$). Side effects were minimal in both groups.**Conclusion:** The findings indicate a potential relationship between tamarind seed extract and improvements in premature ejaculation and related factors, comparable to sertraline; however, these results should be interpreted with caution and require further validation through additional research.Trial registration number: IRCT20140926019295N4. **[GMJ.2025;14:e4015] DOI:10.31661/gmj.v14i.4015**

Keywords: Premature Ejaculation; Tamarind; Sertraline; Treatment; Trial

Introduction

Orgasm is a feature that is perhaps unique to human beings and is a brain process that normally accompanies the ejaculation of the semen. Normal ejaculation is a highly coordinated physiological process involving the release and expulsion phases controlled by the autonomic and somatic nervous systems [1]. Premature Ejaculation (PE) is defined by the American Urological Association as "ejaculation that occurs sooner than desired either before or shortly after penetration, causing distress to either one or both partners"; the Inter-

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rind has been linked to improved blood oxidative levels in patients undergoing treatment for premature ejaculation with SSRI drugs [34], and inflammation [35] has been identified as a factor in the occurrence of premature ejaculation. Despite the proven benefits of tamarind, one study found that this plant's products can have toxic and teratogenic effects on the embryos of zebrafish [36]. Both treatments exhibited minimal side effects, supporting their safety for short-term use in treating premature ejaculation.

Although our research yielded significant findings, several limitations should be addressed in future studies. The first limitation is the small sample size, which may reduce the statistical power of the study and restrict the generalizability of our results. The second concern is the cross-sectional nature of the study and the absence of follow-up sessions, raising questions about the long-term stability of the findings. The third issue refers to the lack of a control/placebo group, which makes it challenging to distinguish between psychosocial effects, such as the placebo effect, and the actual effects of the treatments.

The last limitation refers to ignoring the cultural and social diversity of subjects; if participants are selected from a specific geographical or cultural region, their perspectives on the topics included in the questionnaire may be biased. Addressing the mentioned issues in future research could enhance the reliability of the results. Furthermore, future research is recommended to explore the specific mechanisms behind the effects of tamarind on sexual function through both laboratory and clinical methods. It is also important to examine the long-term safety of tamarind use and to compare its effectiveness with other common treatments for premature ejaculation.

Conclusion

This study is the first to investigate the effects of tamarind seed extract (Tamarindus indica L.) in treating premature ejaculation, comparing it to the well-known treatment Sertraline through a randomized double-blind trial. Participants in our study were randomly assigned to different groups, which helps reduce bias and enhances the internal validity of the findings. Furthermore, this study assessed various aspects of sexual function, including erectile function, orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction, in addition to premature ejaculation. While the results indicated positive effects from the Sertraline intervention, the tamarind extract also demonstrated similar benefits in improving premature ejaculation and other related factors. The findings of our study can serve as a foundation for alternative treatments for individuals experiencing premature ejaculation.

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Conflict of Interest

None declared.