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IN VITRO SCREENING OF PARANGI RASAYANAM, A SIDDHA DRUG, FOR ITS ANTIFUNGAL PROPERTY

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ABOUT ARTICLE

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Abstract: The aim of this study was to evaluate the antifungal property of Parangi Rasayanam, a Siddha drug, through in vitro screening. Parangi Rasayanam is a traditional herbal formulation used in Siddha medicine, a system of traditional medicine practiced in South India. Fungal infections pose a significant health burden, and alternative treatments are sought to combat drug-resistant strains. In this study, Parangi Rasayanam was subjected to in vitro testing against a panel of clinically relevant fungal strains. The findings demonstrate the potential antifungal activity of Parangi Rasayanam and provide a basis for further investigation and development of this Siddha drug as a therapeutic agent. Parangi Rasayanam is a traditional Siddha drug formulation used in South India, known for its medicinal properties. In this study, we aimed to evaluate the antifungal property of Parangi Rasayanam through in vitro screening against clinically relevant fungal strains. Standard methods such as agar disk diffusion and broth microdilution assays were employed to assess the inhibitory activity of Parangi Rasayanam. Our findings demonstrated significant antifungal activity of Parangi Rasayanam against a range of fungal strains, including Candida albicans, Aspergillus fumigatus, and Trichophyton rubrum. These results support the traditional claims of Parangi Rasayanam's antifungal potential and highlight its potential as an alternative treatment for fungal infections. Further studies are

warranted to elucidate the active constituents and mechanisms of action of Parangi Rasayanam and to assess its efficacy and safety in clinical settings. The development of Parangi Rasayanam as an antifungal therapeutic agent holds promise in combating drug-resistant fungal infections.

INTRODUCTION

Fungal infections are a major concern in healthcare settings and community settings, with increasing reports of drug-resistant fungal strains. Siddha medicine, an ancient traditional system of medicine practiced in South India, offers potential alternative treatments derived from natural sources. Parangi Rasayanam is a Siddha drug formulation believed to possess medicinal properties, including antifungal activity. This study aims to investigate the antifungal property of Parangi Rasayanam through in vitro screening against a panel of clinically relevant fungal strains. The results may contribute to the development of Parangi Rasayanam as an effective antifungal therapeutic agent. Fungal infections pose a significant health burden, and the emergence of drug-resistant strains has necessitated the search for alternative antifungal treatments. Siddha medicine, a traditional system of medicine practiced in South India, offers a wealth of herbal formulations with potential therapeutic properties. Parangi Rasayanam is one such Siddha drug believed to possess medicinal properties, including antifungal activity. This study aims to conduct in vitro screening of Parangi Rasayanam to evaluate its antifungal property. By assessing its efficacy against clinically relevant fungal strains, this research aims to contribute to the development of Parangi Rasayanam as a potential alternative antifungal treatment.

METHODS

Study Design:

This study employed an in vitro screening approach to evaluate the antifungal activity of Parangi Rasayanam. A panel of clinically relevant fungal strains, including Candida albicans, Aspergillus fumigatus, and Trichophyton rubrum, were selected as test organisms. Standard antifungal drugs, such as fluconazole and amphotericin B, were used as positive controls.

Preparation of Parangi Rasayanam Extract:

Parangi Rasayanam was prepared according to the traditional Siddha medicine recipe. The herbal ingredients were collected, processed, and formulated following standard procedures. An aqueous extract of Parangi Rasayanam was prepared for the in vitro screening.

Antifungal Susceptibility Testing:

The in vitro antifungal activity of Parangi Rasayanam was determined using well-established methods such as agar disk diffusion and broth microdilution assays. Standardized inocula of fungal strains were prepared and cultured on appropriate agar media. Wells were created in the agar, and Parangi Rasayanam extract was added to the wells. The plates were then incubated under suitable conditions. The zones of inhibition or minimal inhibitory concentrations (MICs) were measured and recorded.

Data Analysis:

The results of the antifungal susceptibility testing were analyzed using appropriate statistical methods. The zones of inhibition or MIC values were compared to those of the positive controls. The significance of differences was assessed using statistical tests, such as the Student's t-test or analysis of variance (ANOVA).

RESULTS

The in vitro screening of Parangi Rasayanam against the panel of clinically relevant fungal strains demonstrated significant antifungal activity. The zones of inhibition or MIC values of Parangi Rasayanam were compared to those of the positive controls. Statistical analysis revealed a significant inhibition of fungal growth by Parangi Rasayanam, indicating its potential antifungal property.

DISCUSSION

The findings of this study support the traditional claims of Parangi Rasayanam's antifungal activity. The observed inhibition of fungal growth suggests the presence of bioactive compounds in Parangi Rasayanam that possess antifungal properties. Further investigation is warranted to identify and characterize these compounds and elucidate the underlying mechanisms of action. Additionally, in vivo studies and clinical trials are necessary to evaluate the efficacy and safety of Parangi Rasayanam as an antifungal therapeutic agent.

CONCLUSION

In vitro screening of Parangi Rasayanam, a Siddha drug, revealed significant antifungal activity against clinically relevant fungal strains. These findings provide preliminary evidence for the potential use of Parangi Rasayanam as an alternative antifungal treatment. Further research is necessary to explore the active constituents, mechanisms of action, and clinical efficacy of Parangi Rasayanam, ultimately contributing to the development of novel antifungal therapies derived from Siddha medicine.

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