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To Synthesis and Evaluation of Some Novel 1, 3, 4- Oxadiazoles Derivatives Compound as an Antifungal Agent

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Abstract

Numerous endemic and opportunistic fungal infections now have more treatment options thanks to significant advancements in the azole class of antifungal drug research. This study gives a quick summary of the Chemical Synthesis and discusses the existing and potential applications of the azole antifungal drugs that are now on the market for treating superficial and systemic fungal infections. Many individuals throughout the world suffer from fungal diseases, which raise hospitalization and mortality rates. As resistance to fungal infections rises and the number of patients with impaired immune systems rises, there is an increasing need for new antifungals. Cytochrome P450 demethylase (CYP51), a crucial enzyme in the production of ergosterol, is inhibited by azole antifungals.The sterol ergosterol is found in the cell membrane of fungi. Fungal growth is inhibited by azole antifungals because they interfere with the structure and functioning of the fungal membrane. It is likely to be more effective to use the azoles that are now on the market in conjunction with other antifungal medications that have distinct modes of action.

Keywords: Antifungal agents, Types of antifungal drugs, Triazoles, Invasive fungal infections, Resistance

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