Antifungal Activity of Ethanolic *Oroxylum indicum* Extract

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Abstract

Candida albicans is a common and versatile fungus that can exist in different forms, such as yeast, pseudohyphal, and hyphal, posing a significant health threat. It is the primary cause of Vulvovaginal candidiasis, a condition affecting up to 75% of women at least once in their lifetime, with 80 to 92 percent of these cases attributed to *Candida albicans*. While current medications can effectively treat this infection, there is a growing interest in exploring new treatments, particularly those derived from plants, to enhance therapeutic options.

This study aimed to assess the antifungal activity of ethanolic extracts from *Oroxylum indicum* branches and leaves against *Candida albicans*. The disc diffusion assay served as the initial antifungal screening method. Subsequently, the Minimum Inhibitory Concentration (MIC) and Minimum Fungicidal Concentration (MFC) values were determined using microbroth dilution and colorimetric assays. Notably, the ethanolic branch extract exhibited the largest inhibition zone (11 mm). The lowest MIC (0.048 mg/ml) was observed in the ethanolic branch extract, while both the ethanolic leaf and branch extracts demonstrated the lowest MFC (0.78 mg/ml). These findings suggest that *Oroxylum indicum* extracts possess antifungal properties against Candida albicans, highlighting their potential as therapeutic agents.

Keywords: Ethanolic extracts, *Oroxylum indicum, Candida albicans*