Synthesis and Antifungal Evaluation of 1-Aryl-2-dimethylaminomethyl-2-propen-1-one Hydrochlorides

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The development of resistance to current antifungal therapeutics drives search for new effective agents. The fact that acetophenone derived several Mannich bases had shown remarkable antifungal activities in our previous studies led us to design and synthesize some acetophenone derived Mannich bases, 1-8 and 2-acetylthiophene derived Mannich base 9, 1-aryl-2-dimethylaminomethyl-2-propen-1-one hydrochlorides, to evaluate their antifungal activity. Aryl part was C\textsubscript{6}H\textsubscript{5} (1); 4-CH\textsubscript{3}C\textsubscript{6}H\textsubscript{4} (2); 4-CH\textsubscript{3}OC\textsubscript{6}H\textsubscript{4} (3); 4-ClC\textsubscript{6}H\textsubscript{4} (4); 4-FC\textsubscript{6}H\textsubscript{4} (5); 4-BrC\textsubscript{6}H\textsubscript{4} (6); 4-HOC\textsubscript{6}H\textsubscript{4} (7); 4-NO\textsubscript{2}C\textsubscript{6}H\textsubscript{4} (8); C\textsubscript{4}H\textsubscript{3}S(2-yl) (9). The compounds were synthesized by conventional heating method [1]. Antifungal activities of all compounds were tested as described [2] and reported for the first time by this study using Amphotericin B as reference compound.

Compounds 1-6, and 9, which had more potent (2-16 times) antifungal activity than the reference compound Amphotericin B against some microorganism can be model compounds for further studies to develop new antifungal agents.

REFERENCES