

Antimicrobial Compounds from Microorganisms-Associated with Selected Desert Flora

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Background

The immense genetic variety found in plants and microbes provides a plethora of opportunities for human advancement in the creation of medicine. Microorganisms have been exceptionally rich sources of drugs. Nowadays, the emergence of new infectious diseases and the resistance of some pathogenic microbes necessitates further attempts to find new antimicrobial agents in the fight against infections.

Objective

The main goal of this study was to explore and evaluate the biologically active secondary metabolites from selected desert flora-associated microorganisms.

Methods

This was achieved through the isolation of bacteria and fungi associated with plants selected from diverse parts of the Saudi Arabian desert. This study was directed to test the optimal microbial culture composition for the production of biologically active metabolites against pathogenic microbes.

Results

The produced secondary metabolites showed profound antibiosis activities. Some of which were comparable to or more potent than some of the currently used antibiotics.

Conclusion

These findings lay the foundation for further discoveries of new metabolites that are urgently needed to face the uprising microbial resistance and mutations that the whole world is continuously suffering from.

Keywords: Associated microbes, screening, antimicrobial activity, microbial diversity, saudi flora, desert flora.