

Bioactive molecule of essential oil of Cuperssussempervirence Mill – in vitro other treatment against microbial pathogenesis

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Abstract:

Background: Each year, many million people attract infections caused by bacteria, fungi, virus, and parasite, infectious diseases reached at high rate, and the problem of emerging and re-emerging infections becomes a serious danger to human health, medicinal plants constitute a source of bioactive molecules can fight against infection microbial disease. In the context of this research, was intended to characterize biomolecule of hydro-distilled essential oil of *Cuperssussempervirence* produces in west of Algeria and its potentials against disease infections.

Methods: The essential oil was analyzed by gas chromatography-mass spectrometry (GC-MS) method and Antibacterial activity was investigated in vitro against twelve clinical and reference encountered in Clinical Laboratory and the Microbiology Laboratory of Sidal Medea using the well diffusion method. The minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) were determined by the dilution method agar.

Results: The most common components usually found in cypress essential oils were present in the oil samples analyzed, 43 components, which constitute 97,893% were identified in the essential oil. The major constituents were Alpha pinene (60.05%), delta-3-carene (18.08%) et terpinolene (2.44%). myrcene (2.39%), limonene (1.83%), the results of the disk diffusion method showed high essential oils activity against all strains tested . The best antimicrobial activity against *Candida albicans* ATCC1231was found (0.001v/v) .Bactericidal activity was higher for EO (minimal inhibitory concentration (MICs) 0.02(v/v)) against almost all tested bacteria, except multi drug resistant strains of *Salmonella typhimurium* ATCC13311 and *Bacillus cereus* ATCC10876. The results obtained of this study provide that essential oil of *Cuperssussempervirence* is treatment against microbial pathogenesis human.

Keywords:Cuperssussempervirence, antibacterial, GC /MS, bioactive molecule, infections.

1. Declaration of conflicts

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2. Authors' biography

No Biography

3. REFERENCES

No references