Anti-Pseudomonal Effect of Argan Oil on Pseudomonas aeruginosa Recovered from Burn Patients in Hilla City, Iraq

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Abstract: The burn and wound infection is considered one of the major health problems in the world, and one of the most frequent and severe complications in patients who have sustained burn. *P. aeruginosa* is a common cause of wound infections, especially of thermal burns, this is because burns have large exposed areas of dead tissue free of any defenses and, therefore, are ideal sites for infection by bacteria from the environment or normal microbiota. To assess Antibacterial effect Different concentrations of both Argan Oil (which was fetched from Maraco Kingdom) and Hydrogen Peroxide (H2O2).
Bacterial isolates obtained from the Central Laboratory in Hilla City, Iraq. was preliminary diagnosed in this Lab. as *Pseudomonas aeruginosa*, the causative agents of skin and burns infections and the more resistant bacteria to antibiotics. Those isolates were reidentified in our Lab. for confirmation.
The test bacterial isolates were treated with; H2O2 (1.5%) alone, Argan oil alone and with physiological saline as a control (by using the wells in agar method). No effect on bacterial activities and vitality were observed in this experiment.
Argan oil and H2O2(1.5%) were combined together to form compounds in a rate of 1:1, 2:1 and 1:2 respectively. The results of this experiment revealed considerable effects on test organisms since the diameter of inhibition zones recorded as high as 23.82mm., 24.57mm. and 23.05mm. These effective of Argan oil Mixing with 1.5% H2O2 on *P. aeruginosa* burn isolates show remarkable results when compared to highly active antibiotics like Amikacin, Tobramycin, Ceftazidime, Aztreonam, Norfloxacin and Gentamycin.

Keywords: Argan oil, H2O2, Anti –Pseudomonal, *Pseudomonas aeruginosa*.