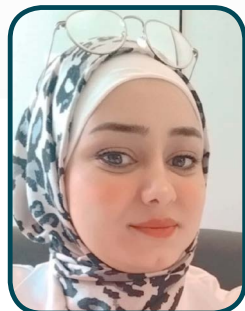


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Anti-Multidrug Resistant *Pseudomonas aeruginosa* of *Glycerhiza glabra*

P*seudomonas aeruginosa*, especially multi-drug resistance, is pathogenic bacterium responsible for many infections threatened public health of human beings, so, there is an urgent need to search for medicinal plants that have anti pseudomonal activity. Therefore, this research aims to study anti-multidrug resistant *Pseudomonas aeruginosa* of leaves and fruit of *Glycerhiza glabra*, as a natural source of effective antibacterial ingredients. Antibacterial susceptibility of *P. aeruginosa* was determined to 15 antibiotics belonging to 10 Antibiotic groups, by using disc diffusion method. Isolates Multi drug resistance (MDR), extensively drug-resistant (XDR), and Pan drug-resistant (PDR) were identified. Anti-multidrug resistant *Pseudomonas aeruginosa* of *Glycyrrhiza glabra* extracts (20%) was studied, using Agar well diffusion method. Minimal Inhibitory Concentration (MIC) was determined using Microdilution method in microtetratration plates. *P.aeruginosa* isolates were susceptible to Colistin by 74.1%, and to Fosfomycin by 37%, while they were resistant to Chloramphenicol by 89.9%, Gentamicin by 77.8%, and Cefepime by 74.1%. 96.3% of isolates were MDR, and 74.1% were XDR, while none of tested isolates were PDR. *Glycyrrhiza glabra*, Methanol and hexane extracts of leaves showed antipseudomonal activity more than chloroformic one with inhibition zone of 13.67 mm. chloroform extract of fruits was more active than methanol and hexane extracts, with inhibition zone of 21.67 mm. The best MIC value was 0.19 mg/ml for methanol extract of *Glycyrrhiza glabra* leaves and chloroform and hexane extract of *Glycyrrhiza glabra* fruits.

Key Words: *Pseudomonas aeruginosa*, infections, *Glycerhiza glabra*, MDR, XDR. MIC.