

عنوان مقاله:

Inhibitory effect of hydroalcoholic extract of native plants of *Dysphania botrys* and *Artemisia khorassanica* on some Gram-positive and Gram-negative bacteria

محل انتشار:

بیست دومین کنگره میکروب شناسی ایران (مجازی) (سال: 1400)

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خلاصه مقاله:

Background and Aim : Following the development of drugs, microorganisms become resistant to them through a variety of mechanisms. In recent years, the prevalence of antibiotic resistance has increased dramatically and the treatment of diseases caused by them has become more difficult. In this regard, new drugs are being developed. The aim of this study was to study the inhibitory effect of hydroalcoholic extracts of *Dysphania botrys* and *Artemisia khorassanica* on some bacteria. **Methods :** *Artemisia khorassanica* (Family: Asteraceae) and *Dysphania botrys* (Family: Amaranthaceae) were collected from suburbs of Quchan (Khorasan Razavi province). After extracting the hydroalcoholic extract of the mentioned plants, blank discs impregnated with ۲ mg of the extract were prepared using DMSO. Inhibitory effect of the extracts was determined by disk diffusion method based on Kirby Bauer standards. *Klebsiella pneumoniae* (ATCC ۷۰۰۶۰۳), *Micrococcus*, *Staphylococcus aureus* (PTCC۱۱۱) and *Staphylococcus epidermidis* (ATCC۱۲۲۲۸) and ۱۵ clinical isolates of *K. pneumoniae* were inoculated on Mueller-Hinton agar. Clinical isolates were previously identified using differential biochemical tests and confirmed with ۱۶S rRNA primer and polymerase chain reaction. Standard gentamicin disk and blank disk were placed on the plate as positive and negative controls. **Results :** The results showed that the highest effect of *D. botrys* on *S. aureus* (۱۸ mm) and the highest effect of *A. khorassanica* on *K. pneumoniae* (۱۲ mm). The minimum inhibition concentration (MIC) of *D. botrys* was ۵۰۰ ?g/ml against *S. aureus*. **Conclusion :** The results of this study showed that these two plants or their effective compounds can be a good candidate for the more effective treatment of bacterial infections.

کلمات کلیدی:

Dysphania botrys, *Artemisia khorassanica*, Antimicrobial activity, Diffusion disk

لینک ثابت مقاله در پایگاه سیویلیکا:

