

ANTIMICROBIAL ACTIVITY OF EXTRACTS FROM LEAVES AND SEEDS OF *PETROSELINUM CRISPUM* GROWING IN SUDAN AGAINST ISOLATED URINARY TRACT INFECTING MICROORGANISMS

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Background

Urinary tract infections (UTIs) are a common type of infection caused by bacteria travel up urethra to the bladder caused cystitis, if infection spread to the kidneys and ureters, it is called pyelonephritis.

Petroselinum crispum plant is well known for it is traditional used in the treatment of urinary tract infection.

The aim of this study is to investigate the beneficial effects of *P. crispum* in the treatment of UTIs.

Methodology

The antibacterial activity of *P. crispum* leaves and seeds against isolate urinary tract infecting bacteria, *Escherichia coli, Pseudomonas aeroginosa* (gram negative bacteria) and *Staphylococcus aureus, Enterococcus faecalis* (gram positive bacteria).

Findings

The four isolated organisms were found to be sensitive to the *P. crispum* leaves and seeds extracts with different degree. The inhibition zones of *E. coli*, *P. aeroginosa*, *S. aureus* and *E. faecalis* were found to be (16, 20, 20,16 mm) and (16, 16, 16, 17 mm) for the leaves and seed extract respectively. compared to the activity of Ciprofloxacin standard drug with inhibition zone of (13, 14, 27, 23 mm) regarding the *E. Coli*, *P. aeroginosa*, S. *aureus* and *E. faecalis* respectively.The MICs were range between 50-2.5 mg/ml.

Phytochemical screening of both *P. crispum* leaves and seeds extracts revealed the presence of tannins, flavonoids, sterols and terpenoids which are well known for their anti-microbial activity. Addition to the amount of these compounds are found to be higher in leaves than in seed, along with the presence of saponins solely in leaves, so activity is higher in leaves extract than in seeds.

Conclusion

The study conclude that, the isolated bacteria have different sensitivity to *P. crispum* leaves and seeds extracts, which was found to be compatible with the traditional use of the plant for the treatment of urinary tract infections and explained the difference in therapeutic value of the plant to words the different urinary tract infecting patients.

Biography

Reham Sharafeldin is a pharmacist, graduated from the University of Medical Sciences and Technology in 2017, having a graduation project in the department of Pharmacognosy.

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