



Abstract

Piper longum and *Piper nigrum* are the plants, which have potential to reverse antibiotic resistance and increase the efficacy of the current drugs. In the present study, against four resistant strains antibiotics Clindamycin, Gentamicin, Levofloxacin, Amikacin, Tigecycline, Imipenem and Tetracycline were used. Antibiotic resistance reversal analysis was performed by antibiotic susceptibility testing disc method. In *Staphylococcus aureus* antibiotics Clindamycin, Gentamicin, Levofloxacin and Amikacin zone of inhibition increased 11mm, 7mm, 9mm and 9mm respectively after using plant extracts. Zone of inhibition of antibiotics Amikacin, Gentamicin, Tigecycline, Levofloxacin and Imipenem was increased 11mm, 10mm, 15mm, 15mm and 10mm respectively by using plant extracts in *Salmonella typhi*. Gentamicin and Amikacin zone of inhibition was increased 3mm and 3mm respectively by using plant extracts in *Escherichia coli*. Zone of inhibition of antibiotics Imipenem and Tetracycline was increased 3mm and 2mm respectively in *Pseudomonas aeruginosa* after using plant extracts. This study suggest that the plant extracts can be used as antibiotic resistance reversal agent that have no side effects on human body and can reverse antibiotic resistance naturally.