Abstract

In present study, five resistant bacterial strains were tested for the reversal of antibiotic resistance by using essential oils of nine plants. Antibiotic resistance reversal analysis was performed by using antibiotic susceptibility testing disc method. Maximum resistance reversal activity was shown by *Azadirachta indica* with Ciprofloxacin while minimum activity was given by *Coriandrum sativum* with Erythromycin in *Staphylococcus aureus*. *Cassia fistula* showed maximum reversal activity with Amikacin while the same plant gave minimum reversal activity with Erythromycin in *Escherichia coli*. In *Pseudomonas aeruginosa*, maximum activity was given by *Allium sativum* with Amikacin and minimum activity was shown by *Allium sativum* with Meropenem. *Azadirachta indica* gave maximum resistance reversal in *Klebsiella pneumonia* with Ciprofloxacin and minimum reversal was observed by *Nigella sativa* with Aztreonam. Maximum resistance reversal activity was shown by *Cinnamomum verum* with Aztreonam while minimum activity was observed by *Rosmarinus officinalis* with Cefoperazone/Sulbactam. Other essential oils showed intermediate reversal activities in bacterial strains.