Abstract

Pseudomonas aeruginosa is one of the bacteria often found in healthcare-associated infections (HCAI) at hospitals. Several types of research have already shown antibiotic resistance studies against this bacteria. Currently, there are only a few types of research about the effectiveness of natural medicine against P. aeruginosa. This research aims to test the antimicrobial activity of Camellia sinensis, Andrographis paniculata, and Aloe vera to prevent the growth of P. aeruginosa. All of the plants were extracted with three different solvents, namely ethanol, water, and chloroform. The effectiveness of each ingredient was produced and tested with the maceration process. Antimicrobial susceptibility test and minimum inhibitory concentration test were performed to observe each extract's inhibition zone. The result showed that inhibition zones in the Kirby-Bauer test were only observed with C. sinensis ethanol extract, chloroform extract, and Aloe vera ethanol extract. In contrast, in water extract, there was no inhibition zone occurred. Therefore, it is concluded that ethanol and chloroform may have successfully isolated the active compound inside the plants, although the effect was minimal, probably because of low concentration.