Abstract

Centella asiatica or "pegaga" is well known for its ability in promoting wound healing. This study focused on the effect of Centella asiatica on the proliferation of human respiratory epithelial (RE) cells. RE cells were cultured using co-culture techniques until first passage (P1). Viability cell test by tryphan blue dye exclusion assay showed that there was high percentage of cell viability at both P0 (74%) and P1 (91.61%). Triplicate MTT assays were carried out with different concentrations of C. asiatica from 15.6 ppm, 31.3 ppm, 62.5 ppm, 125 ppm, 250 ppm, 500 ppm, 1000 ppm, until 2000 ppm. The higher the concentration of C. asiatica, the more inhibitory effect was seen. C. asiatica aqueous extract at concentration 1000 ppm and 2000 ppm demonstrated a significant (p<0.05) inhibitory effect on human RE cells proliferation on day 4 and day 7 after treatment. This provides potential use of C. asiatica extract for the treatment of conditions with respiratory epithelial cells overgrowth.