EFEK EKSTRAK TERUNG UNGU (Solanum melongena) TERHADAP AKTIVITAS ANTIOKSIDAN SALIVA PENDERITA PERIODONTITIS KRONIS

(THE EFFECT OF EGGPLANT (Solanum melongena) EXTRACT AGAINST ANTIOXIDANT ACTIVITY ON SALIVARY PATIENTS WITH CHRONIC PERIODONTITIS)

ABSTRACT

Background. Periodontitis is caused by bacterial that accumulates on teeth and gingiva. Bacteria stimulate polymorphonuclear cells (PMN) from blood to reach gingival crevicular fluid. PMN activated to release reactive oxygen species (ROS). ROS at high concentration cause oxidative stress and attack healthy cells of the gingiva. Eggplant contains antioxidant compounds like anthocyanin, nasunin, chlorogenic acid and ascorbic acid. Purpose. This study aims to prove the eggplant extract has antioxidant activity in saliva periodontitis patients. Method. The eggplant extracts at concentration 100%, 50%, 25%, 12.5%, 6.25%, 3.125%, 1.56%, 0.78% tested antioxidant activity with DPPH assay. The extract was mixed with the saliva of periodontitis patients and DPPH reagent, then measured value of absorbance using spectrophotometer UV-VIS with a wavelength of 517 nm. Results. The eggplant extract at concentration 0.78 %, 1.56 %, 3.125 %, 6.25 %, 12.5 % is significantly increase antioxidant activity that are expressed as percent reduction activities. This may be due to anthocyanin, nasunin, chlorogenic acid and ascorbic acid that have antioxidant. Conclusion. Eggplant extract has active antioxidant activity at concentration 0.78 %, 1.56 %, 3.125 %.

Keywords. Solanum melongena, DPPH, periodontitis.