

UJI EFEK ANTIOKSIDAN EKSTRAK DAUN SIRIH MERAH (PIPER CROCATUM) PADA SALIVA PENDERITA PERIODONTITIS KRONIS***(THE ANTIOXIDANT EFFECT TEST OF PIPER CROCATUM LEAVES EXTRACT AGAINST CHRONIC PERIODONTITIS PATIENTS' SALIVA)*****ABSTRACT**

Background. Periodontal diseases represent chronic inflammatory responses to a bacterial challenge. Following the stimulation by bacterial antigen, neutrophils and macrophages produce reactive oxygen species (ROS) during the process of phagocytosis. ROS can lead to extracellular structure damage. Protection against ROS is provided by antioxidants. Piper crocatum leaves contain antioxidant compounds, which are polyphenols, flavonoids, terpenoids, vitamin E, and alkaloids. **Purpose.** This experimental laboratory research aim to prove Piper crocatum leaves have antioxidant activity on chronic periodontitis patients' saliva. **Methods.** Piper crocatum leaves extracts at concentration 25 ppm, 50 ppm, 75 ppm, 100 ppm, 200 ppm, and 500 ppm were mixed with seven samples of chronic periodontitis patients' saliva and tested with DPPH assay in order to determine the antioxidant activity of the extracts. These samples were mixed with DPPH reagent, then measured its value of absorbance using spectrophotometer UV-VIS with λ of 517nm. **Results.** Using One-Way ANOVA test, there was a significant differences ($p < 0.05$) between group of 500 ppm concentration with control group. Group of 500 ppm concentration shows that it has percent inhibition of 61,25%, which is greater than 50%. **Conclusion.** Piper crocatum leaves extract at concentration of 500 ppm have antioxidant activity against chronic periodontitis patients' saliva.

Keywords. Piper crocatum leaves, DPPH, chronic periodontitis, antioxidants