

**(ANTIOXIDANT POWER OF CACAO SHEED (*Theobroma cacao*)**

**EXTRACT AGAINST 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. *Theobroma cacao sheed* contains antioxidant compound like polyphenols that contains catechin and flavonoids contains anthocyanin and leukoanthocyanidin. **Purpose.** This experimental laboratory research aim to prove *theobroma cacao sheed* has antioxidant activity in saliva periodontitis patients. **Method.** The cacao sheed extracts at concentration 20ppm, 15ppm, 10ppm, 5 ppm, 2,5ppm and 1,25ppm tested antioxidant activity with DPPH assay. The most effective extract was mixed with the saliva of chronic periodontitis patients and DPPH reagent, then measured value of absorbance using spectrophotometer UV-VIS with a wavelength of 517nm. **Results.** The cacao sheed extract at concentration 20ppm is increasing antioxidant activity, this may be due to catechin, anthocyanin, and leukoanthocyanidin that have antioxidant. But it didn't enough for chronic periodontitis patient. **Conclusion.** 20ppm Cacao sheed extract is less enough to reduce free radical towards chronic periodontitis patient's saliva.

**Keywords.** *Theobroma cacao*, DPPH, periodontitis, antioxidants, polyphenols