

ABSTRACT

UJI EFEK ANTIOKSIDAN EKSTRAK DAUN BINAHONG (*ANREDERA CORDIFOLIA*) TERHADAP RADIKAL BEBAS PADA SALIVA PENDERITA PERIODONTITIS KRONIS

**ANTIOXIDANT ACTIVITY OF BINAHONG LEAVES EXTRACT
(*ANREDERA CORDIFOLIA*)
AGAINST FREE RADICALS IN SALIVA OF CHRONIC
PERIODONTITIS PATIENTS**

Background. Chronic periodontitis is a very common problem of oral health which can be found easily in society. Bacteria presence on the tooth and gingiva could act as an antigen and stimulate PMN cells to eradicate the antigen. Reactive Oxygen Species (ROS) released by PMN cells could damage the surrounding cells and destroy the healthy periodontal tissue structures around them. If so, a condition called oxidative stress could occur. Binahong leaves is a potential antioxidant source which contains quercetin, saponin and terpenoid. The quercetin could act as an antioxidant by stimulate the production of internal antioxidants and transferring their hydrogen atoms to the radicals. Saponin has the ability to break down the hydroxyl radicals, while the terpenoid could inhibit the activity of xanthine oxidase, a catalyst of lipid peroxidation of the cells. **Purpose.** The aim of this study were to prove the antioxidant activity of binahong leaves (*Anredera cordifolia*) extract and to determine the minimum dose which could give the antioxidants actions to the free radicals in the saliva of chronic periodontitis patients. **Material and Method.** This research was done within the in-vitro experiment by reacting bihanong leaves extract and DPPH solution with the saliva taken from the chronic periodontitis diagnosed person. **Result.** The minimum concentration of the leaves extract which could act as an antioxidant was shown in 6.25%. The antioxidant activity was noted at 53.4425%. **Conclusion.** The binahong leaves (*Anredera cordifolia*) extract at 6.25% concentration has an antioxidant activity against free radicals in saliva of chronic periodontitis patients.

Keywords : Chronic Periodontitis, Free Radicals, Saliva, Antioxidant, Binahong leaves, *Anredera cordifolia*