ABSTRACT

UJI EFEK ANTIOKSIDAN EKSTRAK TEH HIJAU (CAMELLIA SINENSIS L.) TERHADAP SALIVA PENDERITA PERIODONTITIS KRONIS

ANTIOXIDANT ACTIVITY OF GREEN TEA EXTRACT (CAMELLIA SINENSIS L.) IN SALIVA OF CHRONIC PERIODONTITIS PATIENTS

Background. Chronic periodontitis which is irreversible and may lead to tooth loss. The number of bacteria present on the tooth and gingival can stimulate polymorphonuclear cells (PMN) to release oxygen free radicals or Reactive Oxygen Species (ROS). ROS and antioxidants should be balanced. If this balance were disturbed, there will be a condition called oxidative stress which mantain the inflammation in gingiva. Green tea is an antioxidant, its known has *quercetin* (transvering their hidrogen atom) and *saponin* (breaks down the hydroxyl radicals) to reduce free radicals. **Purpose.** The aim of this study were to prove the antioxidant activity of green tea extract (*Camellia sinensis l.*) and to determine the effective dose of antioxidants in saliva of chronic periodontitis patients. **Method.** This research was done in-vitro experiment from the saliva of chronic periodontitis patients, do not smoke, do not have a systemic disease and were not taking any medications. **Result.** IC_{50} value was shown in concentration 12,5% (54.87%). **Conclusion**. Green tea extract (*Camellia sinensis l.*) has an active antioxidant power against salivary chronic periodontitis patients**.**

Keywords : Saliva, Chronic Periodontitis, Green Tea, Camellia sinensis l., Antioxidant