ABSTRACT

**Background:** Protein Adhesins 24 kDa obtained from Actinobacillus actinomycetemcomitans. Protein Adhesins plays an important role as virulence factor of Actinobacillus actinomycetemcomitans in Adhesion process. Protein adhesin is one of the virulence factors possessed by A.actinomycetemcomitans which potentially increase the number of acute inflammatory cells PMN. **Purpose:** This study aims to determine effect of induction protein Adhesins 24 kDa on Rats to the number of acute inflammatory cells. This study is a descriptive study using observational cross sectional analytic design. **Method:** Samples consist of 4 group that each group contained 10 rats wistar. One group contain Nacl 0,9%, that serve as negative control. The others three groups were given inductions materials, Adhesins protein 24 kDa into second group, combination materials between protein Adeshin and whole cell A.actinomycetemcomitans into third group, whole cell A.actinomycetemcomitans into fourth group. In chronological order, induction of material and retrieval tissue of rats wistars has been made in previous research, in this research only doing cutted paraffin block sample from previous research used a microtome and histopathologic readings. **Result:** The study showed that there were different result computed using anova. Anova shows the significant different(p<0,005) between each groups. The HSD test shows the significant different (p<0,05) each groups. The result of this research is adding of protein adhesins 24 kDa can increase the number of acute inflammatory cells PMN.

**Keyword:** Protein Adhesins, Virulence factor, PMN