Background. Recurrent Aphthous Stomatitis (RAS) is an oral mucosal disease in which oral epithel layer is destroyed through lamina propia. RAS occurs many times in a year and causes severe discomfort sensation: pain in eating, chewing, swallowing, and talking, it also often causes stress to the patient. Bacteria plays role in exacerbating RAS pathogenicity by causing secondary infection which delays oral mucosa recovery. Roselle leaf is medicinal herb that grows widespread worldwide. It has many health benefits, one of them is antimicrobial effect. Purpose. The aim of this study was to account the inhibition effect of roselle leaf extract towards the growth of RAS polybacteria. Method. This research was done with the help a volunteer, man or woman, 20-45 years of age, who has mouth ulceration which occurs often. The ulceration’s size accounts 8-10mm and does not have systemic disease. The lesion was swabbed. The swabbed material was incubated in Mueller Hinton agar to let the bacteria to grow. Roselle leaf extract is diluted in different concentrations: 100%, 50%, 25%, 12.5%, 6.25%. Sterile paper disc is dipped in Roselle leaf extract and put on the agar media which contains polybacteria. After 24 hours inhibition zone will be measured. Result. The mean diameter of inhibition zone on the concentration 100%, 50%, 25%, 12.5% is 16mm, 8.92mm, 5,72mm, 3,14 mm, but at the concentration 6.25% is zero. Conclusion. Roselle leaf extract can inhibit the growth of RAS polybacteria and the effective concentration to inhibit the growth of RAS polybacteria is 12.5%.

Key words: Hibiscus Sabdariffa L, Recurrent Aphthous Stomatitis, Inhibition zone