ABSTRACT

Background. Recurrent aphthous stomatitis (RAS) is an inflammatory lesion with recurrent ulcer in oral mucosa, characterized by small, round or ovoid ulcer with circumscribed margins, erythematous halo, and covered by yellow or gray pseudomembranous, without other signs of diseases. RAS causes pain, which results the patient difficult to speak, eat, and swallow, also disrupts patient’s normal life and daily activities. Bacterial infection has been implicated in the pathogenesis of RAS through secondary infection. Raja banana peel is one of the medicinal herbs that grows widespread worldwide, and has many benefits, for example its antibacterial activity. Purpose. This study aim to determine the inhibition effect of raja banana peel extract towards the growth of RAS ulcer polybacteria. Method. This research was done by isolation of polybacteria first from healthy male aged 24-45 years, who often has mouth ulceration. The ulceration’s size about >10 mm in diameters. The swabbed material from the ulcer was incubated in Mueller Hinton agar to let the bacteria grow. Raja banana peel extract is diluted in different concentrations: 100%, 50%, 25%, 12.5%, 6.25%, 3.125%, 1.5625%, and 0.78125%. Sterile paper disc that had dripped raja banana peel extract placed on the agar media which contains RAS ulcer polybacteria. After 24 hours incubation, inhibition zone will be measured. Result. At concentrations of 100%, 50%, 25%, 12.5%, 6.25%, and 3.125%, inhibition zones formed, whereas none at concentrations of 1.5625% and 0.78125%, means the minimum inhibitory concentration of raja banana peel extract against polybacteria contained on RAS ulcer is 3.125%. Conclusion. Raja banana peel extract can inhibit the growth of RAS polybacteria colony and the minimum concentration to inhibit the growth of RAS ulcer polybacteria is 3.125%.

Keywords: Musa paradisiaca var. Raja, Recurrent Aphthous Stomatitis, RAS Ulcer Polybacteria, Antibacteria, Inhibition zone