POTENSI EKSTRAK BUNGA MAWAR (Rosa hybrida) SEBAGAI ALTERNATIF ZAT WARNA PADA SAMPEL SWAB SALIVA MUCOUS METODE DIFFQUICK

Asri Jumadewi[1*], Munazirah[2]
[1,2] Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Aceh

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ABSTRAK

Saliva merupakan cairan komplek rongga mulut, tersusun hampir 95% air, yaitu saliva mucous (kental) dan saliva serous (cair). Saliva disekresikan oleh kelenjar eksokrin dan dapat menjadi biomarker instrumen diagnosis dini beberapa penyakit mulut atau sistemis. Diff-quick merupakan teknik cepat turunan pewarnaan Romanowsky, dengan komposisi zat warna eosin dan methylen blue. Penelitian bertujuan untuk mengetahui potensi ekstrak bunga Mawar (Rosa hybrida) sebagai alternatif zat warna eosin pada sampel swab saliva mucous, dengan indikator kejelasan mikroskopis sitoplasma dan intisel. Penelitian dilakukan di laboratorium Sitologi jurusan TLM Poltekkes Kemenkes Aceh, pada bulan April 2025. Sampel swab sebanyak 40 slide diperoleh dari 10 partisipan secara purposive sampling. Metode quasi eksperimen dengan post-test control group design dan diuji dengan uji Kruskal Wallis. Perlakuan kelompok adalah ekstrak bunga mawar 20%, 10%, 5% dan 0% (tanpa ekstrak/kontrol). Hasil uji Kruskal Wallis menunjukkan p-value<0.05, artinya ada perbedaan secara signifikan pada perlakuan ekstrak bunga mawar dalam memulas sampel swab saliva mucous pada pemeriksaan mikroskopis. Hal ini menyimpulkan bahwa bunga Mawar berpotensi menjadi alternatif zat warna eosin berdasarkan kualitas mikroskopis dari kekontrasan sitoplasma dan intisel, yang disebabkan karena adanya unsur flavonoid dan antosianin pada bunga Mawar sehingga dapat memulas sitoplasma dan membedakannya dengan intisel.

ABSTRACT

Saliva is a complex fluid in the oral cavity, composed of almost 95% water, namely mucous saliva (thick) and serous saliva (liquid). Saliva is secreted by exocrine glands and can be a biomarker for early diagnosis of several oral or systemic diseases. Diff-quick is a rapid technique derived from Romanowsky staining, with a composition of eosin and methylene blue dyes. The study aims to determine the potential of Rose flower extract (Rosa hybrida) as an alternative to eosin dye in mucous saliva swab samples, with indicators of microscopic clarity of cytoplasm and nucleus. The study was conducted in the Cytology laboratory of the TLM department of the Aceh Ministry of Health Polytechnic, in April 2025. 40 swab samples were obtained from 10 participants by purposive sampling. The quasi-experimental method with a post-test control group design and tested with the Kruskal Wallis test. The treatment groups were rose flower extract 20%, 10%, 5% and 0% (without extract/control). The Kruskal Wallis test results showed a p-value <0.05, meaning there was a significant difference in the treatment of rose extract in staining saliva mucous swab samples in microscopic examination. This concludes that rose flowers have the potential to be an alternative

to eosin dye based on the microscopic quality of the contrast of the cytoplasm and nucleus, which is caused by the presence of flavonoids and anthocyanins in rose flowers so that they can stain the cytoplasm and differentiate it from the nucleus.

**Corresponding Author: (asrijumadewi@poltekkesaceh.ac.id)*