

**POLTEKKES KEMENKES TANJUNGPINANG JURUSAN
TEKNOLOGI LABORATORIUM MEDIS PROGRAM STUDI
TEKNOLOGI LABORATORIUM MEDIS
PROGRAM SARJANA TERAPAN**
Skripsi, juni 2025

Made Kinta Yuliana

**Perbandingan Kualitas Sediaan Jaringan Kanker Serviks Dengan
Menggunakan Ekstrak Daun Pacar Air (*Impatiens balsamina L*) Sebagai
Pengganti Eosin Pada Pewarnaan Hematoxylin Eosin**

xvi+ 33 halaman + 20 tabel + 8 gambar + 13 lampiran

ABSTRAK

Pewarnaan Hematoxylin Eosin (HE) merupakan metode standar dalam diagnosis histopatologi, penggunaan eosin sebagai zat pewarna mengandung risiko karsinogenik. Penelitian ini bertujuan untuk membandingkan kualitas sediaan jaringan kanker serviks menggunakan ekstrak daun pacar air (*Impatiens balsamina L.*) sebagai alternatif alami pengganti eosin. Desain penelitian ini adalah eksperimen post-test only control group dengan total 25 sampel jaringan kanker serviks. Perlakuan dibagi menjadi lima kelompok berdasarkan konsentrasi ekstrak (5%, 10%, 15%, dan 20%) serta kontrol menggunakan eosin. Kualitas pewarnaan dievaluasi berdasarkan kejelasan inti sel, sitoplasma, intensitas warna, dan kontras pewarnaan. Hasil penelitian menunjukkan bahwa pewarnaan dengan eosin memberikan hasil paling optimal (rerata skor 8), sedangkan ekstrak daun pacar air pada konsentrasi 15% menghasilkan skor terbaik di antara perlakuan alami (rerata skor 6), meskipun tetap berada di bawah kualitas pewarnaan eosin. Uji statistik Kruskal-Wallis menunjukkan adanya perbedaan signifikan antar eosin dan ekstrak daun pacar air ($p < 0,05$). Kesimpulan dari penelitian ini adalah bahwa ekstrak daun pacar air memiliki potensi sebagai pewarna alami, khususnya pada konsentrasi 15%, namun belum sepenuhnya mampu menggantikan fungsi eosin dalam pewarnaan HE jaringan kanker serviks.

Kata Kunci: Kanker serviks, eosin, ekstrak daun pacar air

Daftar pustaka: 30 (2004-2025)

**TANJUNGKARANG HEALTH POLYTECHNIC
DEPARTEMENT OF MEDICAL LABORATORY TECHNOLOGY
MEDICAL LABORATORY TECHNOLOGY STUDY PROGRAM
APPLIED UNDERGRADUATE PROGRAM**

Thesis, Juni 2025

Made Kinta Yuliana

**Comparison of the Quality of Cervical Cancer Tissue Preparations Using
Watercress Leaf Extract (*Impatiens balsamina* L) as a Substitute for Eosin in
Hematoxylin Eosin Staining**

xvi+ 33 pages + 20 tables + 8 pictures + 13 attachment

ABSTRACT

Hematoxylin Eosin (HE) staining is a standard method in histopathological diagnosis, but the use of eosin as a dye has a carcinogenic risk. This study aims to compare the quality of cervical cancer tissue preparations using henna leaf extract (*Impatiens balsamina* L.) as a natural alternative to eosin. The design of this study was a post-test only control group experiment with a total of 25 cervical cancer tissue samples. The treatments were divided into five groups based on the concentration of the extract (5%, 10%, 15%, and 20%) and the control using eosin. The quality of staining was evaluated based on the clarity of the cell nucleus, cytoplasm, color intensity, and staining contrast. The results showed that staining with eosin gave the most optimal results (mean score 8), while henna leaf extract at a concentration of 15% produced the best score among the natural treatments (mean score 6), although it was still below the quality of eosin staining. The Kruskal-Wallis statistical test showed a significant difference between groups ($p < 0.05$). The conclusion of this study is that henna leaf extract has the potential as a natural dye, especially at a concentration of 15%, but has not been able to fully replace the function of eosin in HE staining of cervical cancer tissue.

Keywords: cervical cancer, eosin, henna leaf extract

Bibliography: 30 (2004-2025)