

**PERBEDAAN EFEKTIVITAS EKSTRAK DAUN BAYAM  
(AMARANTHUS TRICOLOR L.) 100% DENGAN  
KARBAMID PEROKSIDA 10% TERHADAP  
PROSES PEMUTIHAN GIGI (BLEACHING)**

Indah Dwi Setiyowati<sup>1</sup>, Nia Wijayanti<sup>2</sup>

<sup>1</sup>Mahasiswa Program Studi Pendidikan Dokter Gigi FKIK UMY

<sup>2</sup>Dosen Program Studi Pendidikan Dokter Gigi, Fakultas Kedokteran dan Ilmu Kesehatan, UMY

**ABSTRACT**

**Background:** Discoloration of teeth can be overcome by doing teeth whitening treatment. Dental teeth whitening treatment can be done by home bleaching method using 10% carbamide peroxide. The use of chemical teeth whitening agents can cause side effects, therefore, it is undoubtedly needed to find an alternative natural teeth whitening agent in this case. Green spinach leaves contain oxalic acid that has the ability to whiten teeth. Oxalic acid whitens teeth by oxidizing the color pigment on the teeth. **Objectives:** This study aims to determine the efficacy differences in the effectiveness between 100% green spinach leaf extracts and 10% carbamide peroxide toward teeth whitening process (bleaching). **Methods:** This was a laboratory experimental study in vitro with a study of 10 premolar post-extraction samples that had been discolored with black coffee and divided into 2 groups, 5 teeth soaked in 100% green spinach leaf extracts and 5 teeth immersed in 10% carbamide peroxide. Spectrophotometer was used to measure the tooth color. The data obtained were analyzed using Paired Sample t-test. **Results:** The result of paired t-test on 100% green spinach leaf extracts test sample,  $p = 0,001$ , 10% for 10% carbamide peroxide test sample,  $p = 0,000$  ( $p < 0,05$ ), meaning there is significant difference between spinach leaf extracts group 100% green and 10% carbamide peroxide. **Conclusion:** Green spinach leaf extracts can be used to whiten teeth.

**Keyword:** Green spinach leaf extracts, carbamide peroxide, teeth whitening.