

EFEK PEMBERIAN *Epigallocatechin-3-gallate* (EGCG) PADA TEH HIJAU TERHADAP INTENSITAS DISMENORE PRIMER

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ABSTRAK

Latar Belakang : Dismenore didefinisikan sebagai nyeri kram saat menstruasi yang terjadi karena produksi prostaglandin berlebih yang diduga disebabkan oleh over-ekspresi gen COX-2 (*cyclooxygenase-2*). Teh hijau mengandung senyawa EGCG (*Epigallocatechin-3-gallate*) sebanyak 50-80% dalam satu cangkir teh. EGCG mampu meregulasi ekspresi gen melalui mekanisme epigenetik, sehingga perannya penting dalam mengurangi intensitas dismenore primer.

Tujuan : Mengetahui efek pemberian EGCG pada teh hijau terhadap intensitas dismenore primer.

Metode : Jenis penelitian ini adalah eksperimental *pre test* dan *post test design* dengan grup kontrol. Sebanyak 54 orang mahasiswi Kedokteran Umum UNSOED berusia 18-22 tahun dipilih sebagai subjek penelitian secara *consecutive sampling*. Subjek dibagi menjadi dua kelompok yaitu kelompok perlakuan yang diberi teh hijau 2 kali sehari selama satu siklus menstruasi dan kelompok kontrol yang tidak diberi teh hijau. Kedua kelompok dinilai intensitas dismenorenya sebelum dan sesudah dengan menggunakan VAS (*Visual Analogue Scale*). Analisis statistik menggunakan *paired t test* dan *independent t test*.

Hasil : Analisis *paired t test* didapatkan bahwa terdapat perbedaan rata-rata intensitas dismenore sebelum dan setelah diberi teh hijau pada kelompok perlakuan. Analisis *independent t test* menunjukkan bahwa rata-rata intensitas dismenore *post test* pada kedua kelompok menunjukkan perbedaan yang signifikan ($p < 0,05$).

Kesimpulan : Pemberian teh hijau dapat menurunkan intensitas dismenore primer.

Kata kunci : EGCG, Teh hijau, Intensitas dismenore

THE EFFECT OF *Epigallocatechin-3-gallate* (EGCG) IN GREEN TEA TO THE INTENSITY OF PRIMARY DYSMENORRHEA

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ABSTRACT

Background : Dysmenorrhea is defined as painful menstrual cramps that occur due to excess overproduction of prostaglandins due to overexpression of COX-2 (*cyclooxygenase-2*). Green tea contains EGCG compound (*Epigallocatechin-3-gallate*) as much as 50-80% in one cup of tea. EGCG is able to regulate the expression of genes through epigenetic mechanisms, so that an important role in reducing the intensity of primary dysmenorrhea.

Objective : To determine the effect of EGCG in green tea to the intensity of primary dysmenorrhea.

Methods : This study was an experimental pre test and post test design with control group. There were 54 female students of Faculty Medicine UNSOED within 18-22 years old were obtained as subject by consecutive sampling. Subjects were divided into two groups : the treatment group were given green tea 2 times a day during the menstrual cycle and the control group were not given green tea. The intensity of dysmenorrhea in both groups were measured using the VAS (*Visual Analogue Scale*) before and after intervention. The statistical analysis performed by paired t test and independent t test.

Results : Paired t test analysis showed that there were mean differences to the intensity of dysmenorrhea before and after administration of green tea in the treatment group. Independent t test analysis showed significant differences (p value <0.05) mean for the intensity of dysmenorrhea post test in both groups.

Conclusion : Administration of green tea could decrease the intensity of primary dysmenorrhea.

Keywords : EGCG, Green tea, Intensity of dysmenorrhea