

Psidium guajava leaves extract decreased leukocytes and lymphocytes count in Complete Freund's Adjuvant-induced arthritis rats

Title	Psidium guajava leaves extract decreased leukocytes and lymphocytes count in Complete Freund's Adjuvant-induced arthritis rats
Author Order	1 of 4
Accreditation	
Abstract	<p>Background: Psidium guajava is one of the herbal plants that has demonstrated antioxidant and anti-inflammatory properties. Objective: This study aimed to determine the effect of P. guajava leaves extract on leukocytes and lymphocytes in rats. Methods: Fifty rats were divided into five groups. Complete Freund's Adjuvant (CFA) was employed to generate an animal model of arthritis. Group I (arthritis control) received CMC Na, group II (positive control) received dexamethasone 3 mg/kg BW, and groups III-V received 250, 500, and 750 mg/kg BW of the ethanol extract of P. guajava leaves orally. Total leukocyte counts were calculated on days 13 and 29, and on day 29, the histological joints were inspected. Results: The P. guajava leaves extract decreased the number of lymphocytes and total leukocytes. Before and after treatment, the group receiving doses of 250 mg/kg BW and 750 mg/kg BW of the extract showed a significant decrease in leukocytes. With treatment of 250, 500, and 750 mg/kg BW of P. guajava leaves ethanol extract, the lymphocyte count was also reduced. The P. guajava leaves extract at 750 mg/kg body weight showed the greatest effectiveness in suppressing leukocytes and lymphocytes. Conclusion: The extract of P. guajava leaves has the potential to be developed as an anti-inflammatory for arthritis.</p>
Publisher Name	Pharmacy Department, Faculty of Health Sciences, Jenderal Soedirman University, Purwokerto, Indonesia
Publish Date	2022-06-26
Publish Year	2022
Doi	DOI: 10.20884/1.api.2022.10.1.5789
Citation	
Source	Acta Pharmaciae Indonesia : Acta Pharm Indo
Source Issue	Vol 10 No 1 (2022): Acta Pharmaciae Indonesia : Acta Pharm Indo
Source Page	5789
Url	http://jos.unsoed.ac.id/index.php/api/article/view/5789/3215
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