



Journal of Hospital Pharmacy
An Official Publication of Bureau for Health & Education Status Upliftment
(Constitutionally Entitled as Health-Education, Bureau)

**Evaluation of Anti-Inflammatory Action of *Syzygium Cumini* Methanolic
Extract by *in Vitro* Study**

Anita.A 1, Ramya K.B*2, Vennela*3, Mehdi fatima*4, Mohd Shanyimath*5*

Dayananda Sagar University, Bangalore -560078


Department of Pharmaceutical, Chemistry Shavige Malleshwara Hills, Kumaraswamy layout
Bangalore, Karnataka, Bangalore -India

Email Id: serviceheb@gmail.com

ABSTRACT:

The *Syzygium Cumini* from family (Myrtaceae) is an ancient traditional medicinal plant in India. Locally called as jamun having various activity like anti-diabetic, anti-microbial and anti-fungal. *SYZYGIUM CUMINI* is a worldwide medicinal plant traditionally used in herbal medicine due to its various properties against cardio-metabolics which include Anti-hyperglycemic, anti-inflammatory, cardio-protective and antioxidant activities. It is native to the Indian sub-continent [Indian blackberry] and now in adjoining region of southeast Asia. The study aims to determine the *in vitro* anti-inflammatory activity of the methanolic leaf extract of *Syzygium Cumini*. The leaf extracts showed the highest activity, which suggests a major concentration of compounds with potential anti-inflammatory activity. Methanolic extracts of the leaves of the *Syzygium Cumini*. The methanolic extracts were prepared from the dry extracts from the leaves of the plant in serial dilution of 100, 200, 250, 500 µg/mL which were tested for anti-inflammatory activity by *in vitro* by Human Red Blood Cell (HRBC) membrane stabilization method, using diclofenac sodium as a reference drug. The methanolic extract was able to stabilize the erythrocyte membrane in hypotonic solution and exhibited major activity than diclofenac sodium at different doses. The *In-vitro* anti-inflammatory activity was investigated by protein denaturation method using Egg's albumin and Bovine serum albumin. *In-Vitro* anti-inflammatory activity of all concentrations of methanolic extract were estimated by protein denaturation method using Egg's albumin and Bovine serum albumin at 50 - 250 µg/ml concentrations. The result was assessed by UV spectrophotometer at 660nm and compared with the diclofenac sodium as standard drug.

Keywords: Syzygium Cumini , anti-inflammatory activity, human red blood cell membrane stabilization

Access this Article Online	Quick Response Code: 
Website: http://www.journalofhospitalpharmacy.in	
Received on 05/05/2022	
Accepted on 13/05/2022 © HEB All rights reserved	