

Evaluation of anti-inflammatory effect of *Carica papaya* seeds by using wistar albino rats

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Abstract

It is normally agreed that medicinal plants and their products are safer than their artificial counterparts; nevertheless, some plant products may show efficacious but have low therapeutic index or safety margin. *Carica papaya* fruits, leaves, seed and latex are used medicinally for various types of ailments. The Non-Steroidal Anti-inflammatory drugs nowadays are not useful in all cases because of their side effects which is associated with gastric irritation, bleeding, and ulcers. This study was considered to assess the effectiveness of methanol extract of *Carica papaya* seeds as compared to the treatment alternative of the Non-Steroidal Anti-inflammatory drugs which is indomethacin 50mg/kg. Objective: The main objective is to know the effectiveness of the anti-inflammatory effect of the methanolic extract of *Carica papaya* seeds as compared to the treatment alternative of Non-steroidal anti-inflammatory activity-Indomethacin 50mg/kg. Method: The maceration method was used to extract the *Carica papaya* seeds by using Methanol, two different doses of extract of 250mg/kg and 500mg/kg were administered orally after inducing the paw edema using the 1% of carrageenan. Then, the length of the paw edema was measured by using veneer caliper. Results: In the rat paw edema model, 500mg/kg of *Carica papaya* seeds shows 71.43%, 250mg/kg shows 63.91% and standard Indomethacin 50mg/kg treatment showed 88.72% of percentage inhibition. The results are statistically analyzed using One Way ANNOVA test. Conclusion: Post hoc analysis using Effect Scheffe test shows significant difference between group 1 and group 2, 3 and 4 ($p < 0.001$) respectively at all time. The results showed it is significant value ($p < 0.001$) for the Methanolic extract of *Carica papaya* seeds regardless of its doses.

Keywords: Inflammation, *Carica papaya*, NSAIDS