



Evaluation of anti-inflammatory activity of probiotic on carrageenan-induced paw edema in Wistar rats

Solanki HK, Shah DA, Maheriya PM, Patel CA. Evaluation of anti-inflammatory activity of probiotic on carrageenan-induced paw edema in Wistar rats. International journal of biological macromolecules. 2015 Jan 1;72:1277-82.

Summary :

Probiotic strain *Bacillus coagulans* Unique IS-2 was used to assess the anti-inflammatory properties in Carrageenan induced acute inflammatory models.

Bacillus coagulans Unique IS-2 was given orally. Diclofenac sodium was used as a standard drug at a concentration of 150 mg/kg of body weight. Edema was induced with 1% carrageenan to all the groups except group A after half an hour of the oral treatments. Paw thickness was checked at t = 1, 2, 4 and 24 h. Stair climbing score and motility score were assessed at t = 24 h.

Results:

Bacillus coagulans Unique IS-2 showed a statistically significant decrease in paw thickness at $P < 0.05$. The percentage inhibition in paw thickness of *Bacillus coagulans* Unique IS-2 was a $37 \pm 3\%$ after 24 h of treatment. There was a significant increase in stair climbing and motility score.

Conclusion:

Bacillus coagulans Unique IS-2 significantly decreased the inflammatory reactions induced by carrageenan.
