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Free Radical Scavenging and Anti-Inflammatory Activities of the Extracts of *Astraeus hygrometricus* (Pers.) Morg.

Gunjan BISWAS [1], Sagartirtha SARKAR [2] & Krishnendu ACHARYA [1]*

[1] *Molecular and Applied Mycology and Plant Pathology Laboratory, Department of Botany, University of Calcutta, 35, Ballygunge Circular Road, Kolkata 700019, India*

[2] *Genetics Laboratory, Department of Zoology, University of Calcutta, 35, Ballygunge Circular Road, Kolkata 700019, India*

SUMMARY. The present study was aimed to evaluate free radical scavenging and anti-inflammatory potential of extracts of *Astraeus hygrometricus* - a tropical wild edible mushroom. Free radical scavenging potential of crude, boiled and ethanolic extracts was studied using different *in vitro* antioxidant models. The anti-inflammatory activity of the potential extract was evaluated in carrageenan and dextran induced acute and formalin induced chronic inflammatory model in mice. Among all the extracts, ethanolic extract possesses significant *in vitro* superoxide anion, hydroxyl radical scavenging and lipid peroxidation inhibition activities. The IC_{50} values of ethanolic extracts of *A. hygrometricus* represented 357.95, 81.2 and 87.96 µg/ml respectively. Furthermore, the ethanolic extract showed remarkable anti-inflammatory activity in all models comparable to the standard reference drug diclofenac. The results suggest that anti-inflammatory activity of the ethanolic extract of *A. hygrometricus* is possibly attributed to its free radical scavenging properties.

KEY WORDS: Carrageenan, Dextran, Formalin, Hydroxyl radical, Lipid peroxidation, Superoxide radical.

* Author to whom correspondence should be addressed. *E-mail:* krish_paper@yahoo.com