

Anti-inflammatory activity and modulate oxidative stress of *Bucida buceras* in Lipopolysaccharide-Stimulated RAW 264.7 macrophages and Carrageenan-Induced acute paw edema in rats

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As oxidative stress is an important mediator that provoke or sustain inflammatory processes, we evaluated here the effects of *Bucida buceras* on inflammatory response in lipopolysaccharide (LPS)-stimulated RAW 264.7 cells and anti-inflammatory effect and redox biomarkers in carrageenan-induced paw edema in rats. In a continuous effort to find more potent, non-toxic natural product inhibitors that suppress inflammation, the present study was carried out to analyzed the influence of aqueous extract on NO, TNF- α , IL-6 and IL-1 β in LPS-induced murine macrophages and paw thickness, NO, CPR, organoperoxide, oxidation protein and reducing

power antioxidant in paw edema in rats. Treatment with *Bucida buceras* aqueous extract inhibited not only the protein (albumin) denaturation but also, in LPS-induced inflammatory response, including increased secretion of proinflammatory cytokines (IL-6 and IL-1 β) and NO were inhibited by aqueous extract in a concentration-dependent manner. Furthermore, *B. buceras* suppressed significantly edema in a dose-dependent fashion in inflamed rat paws; decrease the C-reactive protein, lipid peroxidation levels (OT) and oxidation protein product and exerted strong reducing antioxidant power.

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