Effects of *Garcinia mangostana* Pericarp Extract and α-Mangostin on Renal Oxidative Status in Extraintestinal Manifestation of Ulcerative Colitis in Mice

The effects of *Garcinia mangostana* pericarp extract (GM) and α-mangostin (MGS) on renal antioxidant status in mice with extraintestinal manifestation of ulcerative colitis (UC) were evaluated. Six-week-old mice (n=9 each) were orally administered GM pericarp extract (40, 200, and 1,000 mg/kg/day), MGS (30 mg/kg/day), or sulfasalazine (100 mg/kg/day) for 7 days. On days 4 to 7, UC was induced using dextran sulfate sodium (40 kDa; 6 g/kg/day). Antioxidant enzymes (catalase, superoxide dismutase, and glutathione peroxidase) were extensively depleted after UC induction (p<0.05), followed by a significant decrease in the ratio of reduced GSH to oxidized GSSG. GM and MGS improved the antioxidative status, antioxidant enzymes, and glutathione profiles, comparable to sulfasalazine. Hence, GM and MGS are promising antioxidants as an alternative nephroprotective agent.

**Keywords:** Antioxidant enzymes, Mangosteen, Glutathione

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