

Antioxidant activity of *Centaurium erythraea* infusion evidenced by its superoxide radical scavenging and xanthine oxidase inhibitory activity.

Abstract

Background and Objective:

Gout is a common metabolic disorder around the world. It is characterized by elevation of uric acid levels in the blood, leading to increase the deposition of urate crystals in the joints and kidneys. The current study was carried out to investigate the efficacy and mechanism of action of watermelon powder as antihyperuricemic agent.

Materials and Methods:

Enzyme assay was done by using bovine milk xanthine oxidase (XO). The XO inhibitory activity in vitro was performed by using different doses of watermelon powder and the degree of XO inhibition was expressed as IC₅₀. The antihyperuricemic and uricosuric activity of watermelon were tested in the potassium oxonate-induced hyperuricemic rats for seven consecutive days of oral treatment of 25, 50 and 100 mg kg⁻¹ doses.

Results:

The results of the study revealed that the watermelon has a moderate activity of XO inhibition with IC₅₀ = 95