

CALCIUM RELEASING ACTIVITY OF FRUIT EXTRACTS OF *ANNONA MURICATA* L. ON VARIOUS CONCENTRATION; IN VITRO STUDY

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Abstract - Kidney stone formation is a complex that results from a succession of several physiochemical events including supersaturation, nucleation, growth, aggregation and retention within the kidneys. Urinary stones affect 10-12% of the population in industrialized countries.

Annona muricata (*A. muricata*) is a member of the Annonaceae family and is a fruit tree with a long history of traditional use. *A. muricata*, also known as soursop, graviola, gunabana, is an evergreen plant that is mostly distributed in tropical and subtropical regions of the world. The fruits of *A. muricata* are extensively used to prepare syrups, candies, beverages, ice-creams and shakes. A wide array of ethno medicinal activities is contributed to different parts of *A. muricata*, and indigenous communities in Africa and South America extensively use this plant in their folk medicine. Numerous investigations have substantiated these activities, including anticancer, anticonvulsant, anti-arthritis, anti-parasitic, antimalarial, hepatoprotective and antidiabetic activities.

This study was designed as in vitro, to evaluate the effect of fruit extract of *A. muricata* used to releasing calcium from renal stones. First of all, to tested calcium releasing property from renal stone, then tested the activity of calcium realizing in various concentration such as 100%, 75%, 50% and 25%.

Experiment was demonstrated a significant effect of the tested fruit extract of *A. muricata* released calcium from renal stones in vitro. However, results revolved that the extract of the fruit of *A. muricata* has a better effect on releasing calcium from renal stones. This activity was dominant in high concentration (100%).

Keywords: *Annona muricata*; Renal stones.