



14TH INTERNATIONAL SYMPOSIUM ON NATURAL PRODUCT CHEMISTRY (ISNPC-14)

November 6 - 8, 2018, Karachi, Pakistan

Organized by

H.E.J. Research Institute of Chemistry,
(International Center for Chemical and Biological Sciences)
University of Karachi, Karachi-75270, Pakistan

ISNPC-14 **PO**

Growth of Urinary Calcium Oxalate Crystals on Glass Slide and their Inhibition by *Phaseolus lunatus* L. infusion

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The study was carried out on glass slides to observe the growth patterns of urinary calcium oxalate monohydrate crystals and their inhibition by using 5, 10, 15 and 20 % *Phaseolus lunatus* seed infusion. For this purpose, a drop of gel medium (sodium metasilicate of 1.06 specific gravity and 3M acetic acid solution) at pH 5.02-5.17 was placed in the middle of glass slide and allowed to convert into gel. Single drop of 1 M oxalic acid was dropped to the left and 1 M calcium chloride and magnesium acetate (1:1) solution was dropped to the right side of properly formed gel. The glass slide was observed under microscope till it was completely dried. In case of crystal inhibition study, a drop of *Phaseolus lunatus* infusion was also added at right side just after the addition of calcium chloride and magnesium acetate solution. The results without infusion showed detailed morphology and aggregation patterns of observed crystals as donut, dumbbell, needles, platy, prismatic, rosette, round edges, X-shape crystals, loose and compact aggregates. All infusions of *Phaseolus lunatus* showed defected crystals. 5 % infusion inhibited crystals of all morphologies with their loose and compact aggregates except X-shaped crystals and rosettes. Whereas, 10 and 15 % infusion decrease number of X-shaped and rosettes crystals. 20 % infusion showed defected rosettes. The present microscopic study of calcium oxalate crystal growth and its inhibition is uniquely simple and provide rapid qualitative analysis of antiurolithiatic activity.