



**9<sup>TH</sup> ANRAP INTERNATIONAL SEMINAR  
“FROM PLANT TO PATIENT: IDENTIFICATION OF  
NEW DRUGS FOR METABOLIC DISORDERS (ANRAP-9)”**

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ANRAP-9 **Poster**

**Inhibition of Hyperoxaluric Calcium Oxalate  
Nephrolithiasis by *Macrotyloma uniflorum* (Lam.)  
Verdc. Seeds Infusion on Glass Slide**

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Hyperoxaluria is a metabolic disorder responsible for calcium oxalate nephrolithiasis. The study was carried out on glass slides to observe the growth patterns of urinary calcium oxalate monohydrate crystals and their inhibition by 5, 10, 15 and 20 % infusion of *Macrotyloma uniflorum* seeds. 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 *M. uniflorum* 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 *M. uniflorum* affected the crystals resulting the formation of defected crystals. 5 % infusion inhibited crystals of all morphologies except donuts, X-shaped crystals, donuts, platy crystal and rosettes. Defected rosettes were observed in 10 % infusion which were reduced in crowd gradually by 15 and 20 % infusion respectively. From this study, it can be concluded that *M. uniflorum* seeds infusion is effective against calcium oxalate nephrolithiasis.