

## Homeopathic Preparation of *Berberis Vulgaris* – A Therapeutic Agent of Hyperoxaluria In Urolithic Rats

Bhavani Tamilarasan<sup>1</sup>, Periandavan Kalaiselvi<sup>1\*</sup>

<sup>1</sup>Department of Medical Biochemistry, Dr. ALMPGIBMS, Taramani Campus, University of Madras, Chennai - 600113.

\*Corresponding author e.mail: pkalaiselvi2011@gmail.com

From National Conference on Interdisciplinary Research and Innovations in Biosciences, NATCON -2018. Post Graduate & Research Department of Biochemistry, Mohamed Sathak College of Arts & Science, Sholinganallur, Chennai-600119, India. 24<sup>th</sup> & 25<sup>th</sup> January 2018.

American J of Bio-pharm Biochem and Life Sci 2018 January, Vol. 4 (Suppl 1): OP49

### ABSTRACT

Oxalate induced renal calculi formation and the associated renal injury were considered as the cause of free radicals. An in vivo model was used to investigate the effect of homeopathic preparation of *Berberis vulgaris*, a well-known antioxidant, against calcium oxalate urolithiasis. Male Wistar rats were divided into four groups. Hyperoxaluria was induced in two of these groups by intra-peritoneal infusion of sodium oxalate (70 mg/kg) and a pretreatment of homeopathic preparation of *Berberis vulgaris* (20µl/kg body weight) was given for 7 days to one group of sodium oxalate infused rats. The anti-urolithic nature of the drug was evaluated by the assessment of urinary risk factors and light microscopic observation of urinary crystals. Renal tubular damage as divulged by urinary marker enzymes and histopathological observations indicated that renal damage was minimised in drug-pretreated group. Oxalate levels and lipid peroxidation in kidney tissue were significantly controlled by drug pretreatment, signifying the ability of homeopathic preparation of *Berberis vulgaris* to quench the free radicals, thereby preventing the lipid peroxidation mediated tissue damage and oxalate entry which accounts for the prevention of CaOx stones. Thus, the present analysis revealed the antioxidant and antiurolithic potential of homeopathic preparation of *Berberis vulgaris* thereby projecting it as a promising therapeutic agent against renal cell injury associated kidney stone formation.