

Evaluation of anticoagulant property of aqueous and Ethanolic Extracts of *Morinda citrifolia*

ABSTRACT

Anticoagulant is an agent used to treat patients with cardiovascular diseases by preventing new clots formation. It works by inhibiting blood from clotting, therefore preventing progression of thrombosis. Heparin, the animal based polysaccharides is a widely used anticoagulant has many adverse effects. This study aimed to evaluate the effects of *Morinda citrifolia* Aqueous Extract (MCAE) and Ethanolic Extract (MCEE) on plasma coagulation in vitro. Platelet Poor Plasma (PPP) from fifty healthy volunteers was incubated with different concentrations of extracts (10, 20, 30, 40 and 50 mg mL⁻¹) and subjected for clotting assays of Prothrombin Time (PT) and Activated Partial Thromboplastin Time (APTT). The samples that been incubated by MCAE and MCEE showed prolongation of PT and APTT. These findings indicated that *Morinda citrifolia* extracts has anticoagulant effect in vitro and also suggest that it may become a potential plant based anticoagulant which is should be effective and safe for clinical need in dealing with patient with cardiovascular disorders.

Keyword: *Morinda citrifolia*; Plant based polysaccharide; Coagulation assay; Anticoagulant activity; MCAE