

## **Inhibitory effects of phylligenin and quebrachitol isolated from *Mitrephora vulpina* on platelet activating factor receptor binding and platelet aggregation.**

### ABSTRACT

Phylligenine, together with quebrachitol, stigmasterol and two aporphine alkaloids—oxoputerine and liriodenine—were isolated from the twigs of *Mitrephora vulpina* C.E.C. Fisch. They were evaluated for their ability to inhibit platelet activating factor (PAF) receptor binding to rabbit platelets using <sup>3</sup>H-PAF as a ligand and their antiplatelet aggregation effect in human whole blood induced by arachidonic acid (AA), collagen and adenosine diphosphate (ADP). Of all the compounds tested, phylligenin and quebrachitol exhibited potent and concentration-dependent inhibitory effects on PAF receptor binding, with IC<sub>50</sub> values of 13.1 and 42.2 μM, respectively. The IC<sub>50</sub> value of phylligenin was comparable to that of cedrol (10.2 μM), a potent PAF antagonist. Phylligenin also showed strong dose-dependent inhibitory activity on platelet aggregation induced by AA and ADP.

**Keyword:** *Mitrephora vulpina*; Phylligenin; Quebrachitol; Platelet activating factor (PAF) antagonist; Antiplatelet activity.