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EVALUATION OF FIBRINOLYTIC ACTIVITY OF *Wedelia chinensis* FLAVONOID FRACTION BY IN-VITRO MODELS

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Abstract

Nature has been a source of medicinal agents for thousands of years and an inspiring number of modern drugs have been isolated from natural sources, many based on their use in traditional medicine. The plant *Wedelia chinensis* belonging to family Asteraceae has various medicinal properties. Fibrinolytic drugs are widely used for the management of cerebral venous sinus fibrinosis patients, but they have certain limitations. Medicinal plants and their components possess anti-fibrinolytic activity. This study examined the *in vitro* thrombolytic potential of flavonoid fraction from *Wedelia chinensis*. Pharmacological history of this plant inspired us to evaluate the possible thrombolytic activity. The percentage (%) clot lysis when compared with vehicle control using an *in vitro* thrombolytic model, flavonoid fraction of *W.chinensis* showed moderate clot lysis activity (41.76 ± 0.67 and $61.42 \pm 1.65\%$, respectively) whereas standard streptokinase showed 79.13 ± 3.60 % clot lysis effect and the negative control water revealed 3.17 ± 1.11 % lysis of clot. Hemolytic rates of high concentration fibrinolytic enzyme ($15\mu\text{L}$ and $20\mu\text{L}$) were a little more than 3% (3.18% and 3.87%, respectively), but low concentration fibrinolytic enzyme ($5\mu\text{L}$ and $10\mu\text{L}$) did not hemolyze erythrocytes observably, and their hemolytic rates were less than 5%.

Keywords- Fibrinolytic enzyme; Streptokinase; Thrombolytic potential; *Wedelia chinensis*.

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