

In vitro anti-viral activity of *Centella asiatica* L., *Curcuma longa* L. and *Strobilanthes crispus* L. against herpes virus

ABSTRACT

Extracts of three different plant species; *Curcuma longa* L., *Centella asiatica* L. and *Strobilanthes crispus* L. which are used widely in Malaysian traditional medicine are investigated for antiviral activity against alpha-herpesvirus (pseudorabies virus). The methanol extract (ME) and aqueous extract (AE) were tested in three cell lines; African Green Monkey Kidney (Vero), Baby Hamster Kidney (BHK) and Rabbit Kidney (RK) cells, at non-cytotoxic concentrations. Assays were developed to determine the characteristics of anti pseudorabies virus (PrV) activities, as anti-viral attachment, anti-prophylactic and /or virucidal. All plant extracts showed marked virucidal ability and considerable prophylactic and anti-viral attachment activities. Plant ME always showed better antiviral activities than plant AE. *Curcuma longa* L. showed a better virucidal and prophylactic effect (with more than 70% cell viability at 25 g/ml) for ME and AE. While *Centella asiatica* L. and *Strobilanthes crispus* L. were most active as anti-viral attachment agent with percent cell viability up to 60%. It was also found that the anti-viral activities were varies in different cell lines tested. Therefore, the extracts of all three plant species exhibited anti PrV and they could be further investigated for medical purposes.

Keyword: *Centella asiatica* L.; *Curcuma longa* L.; *Strobilanthes crispus* L.; In vitro anti-herpesvirus