

Effects of *Centella asiatica* L., *Curcuma longa* L., and *Strobilanthes crispus* L. extracts on 3 kidney cell lines: in vitro cytotoxicity analysis

ABSTRACT

Objective: This study was carried out to evaluate the in vitro cytotoxicity to three cell kidney lines by using the 3-(4, 5-dimethylthiazol-2-yl)-2, 5-diphenyltetrazolium bromide (MTT) reduction assay of three popular medicinal plants used in Malaysia. **Methods:** Methanol and aqueous extracts of *Centella asiatica* L., *Strobilanthes crispus* L. and *Curcuma longa* L. were tested at the non-toxic limit concentration at 50 (NTLC50) ranging from 50 µg/ml and 200 µg/ml depending on the cell lines used, i.e. African Green Monkey Kidney (Vero), Baby hamster Kidney (BHK) and Rabbit Kidney (RK) cells. **Results:** *Centella asiatica* L. was the least toxic to the all cell lines tested followed by *Strobilanthes crispus* L. and *Curcuma longa* L. Methanol plant extracts inhibited cell growth but not to the aqueous plant extracts. Meanwhile, BHK cells were found to be the most resistant to the plant extracts. **Conclusion:** This study proves the safety of these plant extracts for future scientific studies in its biomedical properties.

Keyword: *Centella asiatica* L.; *Curcuma longa* L.; *Strobilanthes crispus* L.; Cytotoxicity