Neuraminidase activity of 96% ethanol extract of *Vitex pinnata* L. leaves

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**Background:** According to World Health Organization, since 2003 until September 2020, it is reported that 861 influenza A (H5N1) cases in humans which caused 455 of deaths worldwide (Case Fatality Rate of 53%). Due to the resistance of current antiviral drugs used to treat influenza A (H5N1) infection, new antiviral is strongly needed. Many studies have reported antiviral activity of some bioactive compound from plants of Verbenaceae family against several viruses. This raised a concern to utilized plants from Verbenaceae family as a source of new antiviral agents. *Vitex pinnata* L is one of medicinal plants from Verbenaceae family that rich in flavonoids compounds which have been reported to have several biological activities.

**Methods:** In this study, the inhibitory activity of 96% ethanol extract of *Vitex pinnata* L leaves on neuraminidase enzyme was done using MUNANA assay as well as the antioxidant activity using DPPH (2,2-diphenyl-1- picrylhydrazyl) method. Neuraminidase is one of the crucial enzyme in the envelope of H5N1 viral surface.

**Results:** The result showed that IC50, 96% ethanol extract of *Vitex pinnata* L leaves on neuraminidase enzyme was 99.33 µg/mL and the IC50 of antioxidant activity was 59.86 µg/mL.

**Conclusions:** In conclusion, 96% ethanol extract of *Vitex pinnata* L is potential to be developed as antiviral agents.

References: