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Determination of antacid potential of aqueous, ethanolic and hexane extracts of *Evolvulus alsinoides (L.)*

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Evolvulus alsinoides ("Nil Vishnukranthi", "Shankpushpi") is a perennial herb which belongs to the family Convolvulaceae. It is used to cure many illnesses such as fever, amnesia, asthma and gastric ulceration. Vishnukranthi chewable granules were formulated for gastro-protective activity using *E. alsinoides* in our previous study. This study investigates the antacid potential of aqueous extract (aqE), ethanolic extract (EE) and hexane extract (HE) of *E. alsinoides in vitro* by evaluating neutralizing effect on artificial gastric juice and the titration method using Fordtran's model. AqE, EE and HE and the reference drugs, Belcid and ENO were evaluated for neutralizing effects using artificial gastric juice. Each test solution was mixed with artificial gastric juice (pH of 1.2) and the end pH was measured. Each test was triplicated. Neutralising capacity of AqE, EE and HE was determined using Fordtran's method. Test solutions at 37°C were titrated with 0.1N HCl. The mean volumes of HCl required to reach pH of 3.00 were determined. AqE and HE possessed a significant neutralising effect ($p<0.001$) on artificial gastric juice when compared with negative control. According to the titration method, aqE possessed a significant neutralising capacity ($p<0.001$). The EE did not exhibit a significant neutralising effect in both models. However, the neutralizing effect of aqE was comparable with the standard drug Belcid but was less potent than ENO. In conclusion, aqE of *E. alsinoides* exhibits a potent antacid effect on both models in determining neutralizing capacity. Bioactivity guided fractionation of the aqE is recommended in search of gastro-protective agents.

Keywords: *Antacid, Evolvulus alsinoides, Fordtran's model, gastroprotective, neutralizing capacity*

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