**Title:** A Preliminary Investigation of the Jack-Bean Urease Inhibition by Randomly Selected Traditionally Used Herbal Medicine

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**Abstract:** Background and the purpose of the study: Helicobacter pylori (H. pylori) infection leads to different clinical and pathological outcomes in humans, including chronic gastritis, peptic ulcer disease and gastric neoplasia and even gastric cancer and its eradication depends upon multi-drug therapy. The most effective therapy is still unknown and prompts people to make great efforts to find better and more modern natural or synthetic anti-H. pylori agents.

**Methods:** In this report, 21 randomly selected herbal methanolic extracts were evaluated for their effect on inhibition of Jack-bean urease using the indophenol method as described by Weatherburn. The inhibition potency was measured by UV spectroscopy technique at 630 nm which attributes to released ammonium.

**Results:** Among these extracts, five showed potent inhibitory activities with IC50 ranges of 18-35 µg/mL. These plants are Matricaria disciforme (IC50=35 µg/mL), Nasturtium officinal (IC50=18 µg/mL), Punica granatum (IC50=30 µg/mL), Camelia sinensis (IC50=35 µg/mL), Citrus aurantifolia (IC50=28 µg/mL).

**Conclusion:** Medicinal plants, traditional medicinal and other natural sources are still a good source for lead discovery. The results of this study showed that random screening of medicinal plants could lead to introducing new candidate for further studies which, in the end, can help and enhance human health.

**Herbal extract, Urease; Inhibitor, Indophenol method, Lead discovery**

**Presentation:** Poster