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In Vitro Test ofChiveLeaves Infuse (*Allium schoenoprasum,* L.)on Calcium Oxalate Solubility using Atomic Absorption Spectrophotometry

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Abstract: Chives (*Alliumschoenoprasum* L.) is a long-lived plants which are very easy to grow.Chives can also be used fresh or boiled as part of spice in cooking. Chives leaves contained a variety of phytochemical compounds included alkaloids, flavonoids, glycosides, steroids, tannins and various minerals such as potassium, magnesium and sodium, which high potassiumcontains is believed to dissolve calcium oxalate in kidney stones, where one of the main factors affecting solubility calcium is potassium.This study aims to determine the effect of potassium to the calcium oxalate solubility in chive leaves infuse solution.This study using fresh and dried chive leaves infuse solution and divided into 2 groups. Group 1 (S1) was fresh chive leaves infuse solution and group 2 (S2) was dried chive leaves infuse solution. Both of these groups will be added by calcium oxalate and incubated on 37^0C for four hours. Then the amount of potassiumabsorption level and calcium solubility assayed using atomic absorption spectrophotometry respectively at wavelength 766.5 nm and 422.7 nm. These results indicated that potassium in fresh and dried chive leaves infuse solution significantly affect the solubility of calcium oxalate. Based on the above results, it can be concluded that both of the fresh and dried chive leaves infuse solution can dissolve calcium oxalate. Levels of dissolved and solubilty percent of calcium oxalate in dried chive leaves solution was higher than fresh chive leave solution.
Keywords: Chives; Infuse; Calcium Oxalate; Atomic Absorption Spectrophotometry.

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