

ABSTRACT

Assessment of Antacid and Antiflatulent Activities of Syrup Formulations from *Cinnamomum zeylanicum* Bl., *Zingiber officinale* Rosc. var *rubrum* and *Syzygium aromaticum* (L.) Merr. & Perry 70% Ethanol Extract by Modified Artificial Stomach Model

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Antacid are used widely for the relief of acid peptic diseases. Nowadays, antacid drugs have many side effects. Considering the side effects of antacids, traditional herbal medicine should be able to investigated as an alternative for the treatment of acid peptic diseases. Antacid usually are used in combination with antiflatulent. The present study investigates the antacid and antiflatulent activities of syrup formulations from *Cinnamomum zeylanicum* Bl., *Zingiber officinale* Rosc. var *rubrum* and *Syzygium aromaticum* (L.) Merr. & Perry 70% Ethanol Extract. Antacid and antiflatulent activities was evaluated using Vatieer's modified artificial stomach model and Rezak's method, respectively. There were three different syrup formulations from 70% ethanol extract of Cinnamomi Zeylanici Cortex, Zingiberis Officinalis Var Rubrum Rhizoma and Syzygii Aromatici Folium with ratio of 5%: 2.5%: 2.5% (F1), 2.5%: 5%: 2.5% (F2) and 2.5%: 2.5%: 5% (F3). The result of antacid activity showed that formula 1 gave acid neutralization effect during 87.06 ± 2.21 minutes, formula 2 during 90.59 ± 1.43 minutes and formula 3 during 72.12 ± 1.74 minutes. The result of antiflatulent activity showed that formula 1 gave antifoaming action with the residual of foam level of 1.3 ± 0.1 cm, formula 2 of $1.2 \pm 0,1$ cm and formula 3 of 1.2 ± 0.1 cm. All treatments showed significant result for antacid and antiflatulent activities ($p < 0.05$) when compared with negative control groups.

Keywords: *Cinnamomum zeylanicum* Bl., *Zingiber officinale* Rosc. var *rubrum*, *Syzygium aromaticum* (L.) Merr. & Perry, Antacid, Antiflatulent.