

The effect of oral administration of Caraway (*Bunium persicum L*) seed aqueous extract on abomasal emptying in neonatal lambs

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Abstract

Abomasal hypomotility plays an important role in the pathogenesis of some abomasal disorders such as abomasal bloat that there are some serious side effects associated with using synthetic drugs for its treatment, such as diarrhea and antibiotic resistance and for decreasing these side effects, administration of herbal medicine can be an appropriate approach. Evaluating effect of *Bunium persicum L* on lamb's abomasal emptying is the goal of this study. This study was conducted on twelve five-day-olds Sangsari-female-lamb (average weight 4 kg). lambs received five oral treatments including saline (30ml), Erythromycin (100mg/kg), Caraway (0.4 gr/kg), Caraway (0.6 gr/kg) and Caraway (0.8 gr/kg), respectively. Acetaminophen absorption test was used to evaluating the rate of abomasal emptying. After drawing relational model between plasma Acetaminophen concentration and time with regression method showed that treating with erythromycin and different levels of aqueous extract of Caraway seed (0.4, 0.6 and 0.8 g/kg) increased the rate of abomasal emptying in comparison to the negative control, significantly. The stimulatory effect of erythromycin on abomasal emptying was higher than the aquatic extract of Caraway seed, significantly. No clinical side effect were observed following the administration of erythromycin and Caraway in lambs. This study showed that aqueous extract of Caraway seed has a stimulatory effect on lamb's abomasal emptying but more studies are needed on the effect of this seed's components on abomasal emptying.

Key words: Caraway, Abomasum, Lamb, Spectrophotometry

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