

## Antiemetic activity of different extracts from the Aerial parts of *Thymus transcaspicus* Klokov

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### Abstract

The antiemetic effects of aqueous, methanolic and petroleum ether extracts of the aerial parts of *Thymus transcaspicus* Klokov in young chickens were studied. Emesis was induced by copper sulfate (10 mg/kg, orally) and ipecac (100 mg/kg, orally). The extracts were injected intraperitoneally (i.p.) at doses 100 and 1300 mg/kg. As a positive control, granisetron (0.1 and 0.5 mg/kg, i.p.) was used. Aqueous extract did not significantly reduce ipecac- or copper sulfate-induced emesis at any dose [percentages of retching inhibition: 23.6 % (increase in retching reflexes) and 1.9 % against ipecac for doses 100 and 1300 mg/kg, respectively and 141.0 % (increase in retching reflexes) and 13.3 % against copper sulfate, respectively]. Methanolic extract showed a significant antiemetic activity against ipecac- and copper sulfate-induced emesis at both doses ( $p < 0.05$ ; percentages of retching inhibition: 44.0 % and 47.0 % against ipecac for doses 100 and 1300 mg/kg, respectively and 49.7 % and 69.7 % against copper sulfate, respectively). Petroleum ether extract showed an interesting and significant antiemetic activity against ipecac- and copper sulfate-induced emesis at both doses ( $p < 0.01$ ; percentages of retching inhibition: 74.0 % and 88.0 % against ipecac for doses 100 and 1300 mg/kg, respectively and 69.0 % and 77.3 % against copper sulfate, respectively). These results indicate a moderate antiemetic activity for the methanolic extract and a strong activity for the petroleum ether extract of *T. transcaspicus* aerial parts in young chickens which is due to the peripheral and central mechanisms.

### Reaxys Database Information

#### Author keywords

Copper sulfate-induced emesis; Ipecac-induced emesis; Medicinal plant; Petroleum ether extract; Young chicken

#### Indexed Keywords

**EMTREE drug terms:** antiemetic agent; copper sulfate; granisetron; ipecac; methanol; petroleum ether; plant extract; *Thymus transcaspicus* extract; unclassified drug

**EMTREE medical terms:** animal experiment; animal model; antiemetic activity; article; chicken; controlled study; drug dose increase; drug isolation; female; male; medicinal plant; nonhuman; solvent extraction; *Thymus transcaspicus*; toxicity testing; vomiting

**Chemicals and CAS Registry Numbers:** copper sulfate, 7708-98-7, 7708-99-8; granisetron, 107007-99-8, 109889-09-0; ipecac, 8012-96-2; methanol, 67-56-1; petroleum ether, 8032-32-4

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