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EFFECT ON INTESTINAL MOTILITY OF SOME THAI TRADITIONAL AND HERBAL MEDICINES USED IN THE TREATMENT OF DIARRHOEA

*Sopit Thamaree, Chantima Pachotikarn, Monthira Tankeyoon and Chandhanee Itthipanichpong*

*Department of Pharmacology, Faculty of Medicine, Chulalongkorn University.*

Four Thai traditional and some herbal medicines formerly employed in the treatment of diarrhoea were studied for their in vitro antispasmodic activity, on the smooth muscle preparation of the guinea pig ileum. Yagrisanaglun (ยาฤษณากลั่น), Yakumtat (ยาคุมธาตุ), Gratumkeemu (กระท่อมขี้หนู, *Mitragyna javanica*), Kamin (ขมิ้นชัน, *Curcuma longa*), Kaminooy (ขมิ้นอ้อย, *Curcuma zedoaria*) and Fahtalychone (ฟ้าทะลายโจร, *Andrographis paniculata*) were able to inhibit the responses of isolated guinea pig ileum to acetylcholine, histamine, barium chloride and dimethyl-4-phenyl-piperazinium iodide (DMPP). Yathatbunchob (ยาธาตุบรรจบ), Yahomgrisana (ยาหอมกฤษณา) and tea were able to inhibit the ileal response to only 3 of those spasmogens but not to barium chloride. The log dose-response curves shifted downward; these results indicated that the antispasmodic mechanism of most tested drugs being studied was nonspecific and non-competitive antagonism. It was a direct alteration of the physical conditions of the lipid-containing interface in the smooth muscle cell membrane and receptors, as well as an indirect action through the nerve supply similar to the inhibitory effect of tea infusion on the isolated ileum. The degree of inhibition was dependent on the strength, amount of the medicinal solution prepared and the time of immersion of the ileum in the tested solution before the application of the spasmogens,

Thai traditional and herbal medicines being studied have a high potential to be used as antidiarrheal drug if their toxicity and safety are carefully studied.