

Effects of seirogan (wood creosote) on propulsive colonic motility and stool characteristics in ambulatory mini-pigs

Kuge T., Venkova K., Greenwood-Van Meerveld B.

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非拘束ミニ豚の大腸ぜん動運動と大便特性(硬度)におよぼす正露丸(木クレオソート)の影響

[Abstract]

Our goal was to determine whether Seirogan, an herbal medicine used as an antidiarrheal agent, modifies colonic function, including motility. Experiments were performed on four female Yucatan mini-pigs with established permanent cecal fistulas providing direct access to the colon. Long-term recordings of proximal colonic motility were accomplished by a solid-state probe (six pressure ports 10 cm apart), and a motility index was calculated. Stool viscosity was also measured. The laxative bisacodyl (15 mg/kg) was used to induce colonic motility (increase in motility index) and stool softening, prior to investigating the effect of Seirogan (2-15 mg/kg per os twice a day) or a vehicle control. Seirogan (15 mg/kg), but not the placebo, reversed the bisacodyl-induced stool softening and restored the motility index to normal values by reducing the number of propagating contractions. Taken together the results suggest that inhibition of proximal colonic motility by Seirogan may contribute to its antidiarrheal action.

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