

Preliminary study of anti-pyretic effect of an Ayurvedic recipe Rathakalka

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Rathakalka is a popular herbal compound of traditional medicine prescribed routinely for infants and young children by Ayurvedic physicians in Sri Lanka. Ingredients of this recipe are from *Dolichos biflorus*, *Glycyrrhiza glabra*, *Santalum album*, *Pterocarpus santalinus*, *Acorus calamus* and Rock salt. This particular recipe being used at a dose of 250 mg /dose orally twice a day for two main purposes. One use of it is as a preventive medicament to protect children from certain diseases during infancy. Moreover, the other use of it is as a curative measure in infants and young children against certain disease conditions especially for some skin diseases, upper respiratory tract infection and fever. The present study was undertaken to evaluate the anti-pyretic effects of Rathakalka on yeast – induced fever in Wistar strain albino rats.

Animals were randomly divided in to five groups of six each. After measuring the basal rectal temperature, animals were injected subcutaneously with 10 mL/ kg body wt. of 15% w/v yeast, suspended in 0.5% w/v methylcellulose solution. Rathakalka was administered orally 19 hours after yeast injection, at the dose of 100, 200 and 300 mg/kg body wt. To 3 groups of animals respectively. Distilled water (2 mL /animal) administered orally to the control group. The fifth group of rats received standard drug, Paracetamol 150 mg /kg body wt orally.

The subcutaneous injection of yeast suspension markedly elevated the rectal temperature at the 19th hour after administration. Treatment with Rathakalka at the dose of 100, 200 and 300 mg /kg body wt decreased the rectal temperature of the rats in dose dependent manner. The anti - pyretic effect started as early as one hour after drug administration, and effect was maintained for 4 hours. The standard drug paracetamol at the dose of 150 mg /kg body wt. reduced the yeast-induced elevation of body temperature. The result obtain from, both the standard drug Paracetamol and Rathakalka treated group were compared with the control group. A significant reduction ($p<0.01$) in the yeast – elevated rectal temperature was observed.

Rathakalka has the capacity to reduce yeast induced elevation of the body temperature in rats. Results of this study may justify more scientific testing of the use of Rathakalka as an anti – pyretic agent in humans. To know the exact mechanism of anti-pyretic action of Rathakalka further study is required.