Proxyphylline is a methylxanthine derivative clinically used as a cardiac stimulant, vasodilator, and bronchodilator. In vitro, proxyphylline has shown vasodilatory and cardiac stimulatory effects. Proxyphylline produces an increase in coronary flow associated with a definite positive inotropic effect [1]. Proxyphylline inhibits tracheal PDE-activity and half-maximum relaxation of tracheal smooth muscle is obtained with 100 μg/mL proxyphylline [2]. In vivo, in a double-blind cross-over study, proxyphylline exhibits bronchodilatory effect [3]. Proxyphylline inhibits cAMP and cGMP hydrolysis in human lung tissue. The apparent inhibition constant of proxyphylline is 0.06-0.7 mM at low cAMP concentrations and it is 1.0 mM at high cAMP concentrations [3].

REFERENCES

[1]. Takeda K, et al. Effects of aminophylline, proxyphylline and a proxyphylline-Melilotus extract-rutin mixture (theoesberiven) on the heart and the coronary...
