

# ABSTRAKT

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Name thesis: Comparison of the effects of substances (VN 004 and VN 009) from derivative of vasicin on model of isolated trachea

The aim of the thesis was to determine the in vitro activity of relaxing two structural modifications quinazoline alkaloids VN 004 (4-dimethylaminoethylsulfanylchinazolin) and VN 009 (N- [2- (piperidin-1-yl) ethyl] quinazolin-4-amine) on smooth muscle isolated rat trachea. They tested synthetic materials were derived from alkaloids vasicin and vasicinone contained in bushes *Adhatoda vasica*. On isolated rat trachea we were observed cumulative relaxation effect of single doses of the aforementioned compounds.

From the measured values it was clearly evident that these synthetic quinazoline derivatives demonstrated on isolated rat trachea relaxing effect. Derivates with ethylaminfragment VN 009 was less effective derivative, but even so, demonstrated a greater activity than the standard theophylline. Conversely, stronger relaxation effect reported from the second derivatives with ethylsulfanyl fragment VN 004, the value of  $ED_{50}$  was 32.5 times lower than the  $ED_{50}$  of theophylline.