

# *BPC 157 prevents development of MCT-induced pulmonary hypertension and cor pulmonale in rats*

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Pentadecapeptide BPC 157 antagonises the incidence of a series of gastrointestinal lesions, it has a positive impact on the healing processes of various wounds, a proven angiogenic effect, protective effect on endothelium and it modulates synthesis of NO. BPC 157 furthermore reduces the duration of arrhythmias induced by ischemic-reperfusional injury in the isolated pig heart, and it also has an antihypertensive effect in the model of L-NAME-induced hypertension.

Monocrotaline (MCT) is a pyrrolizidine alkaloid, which given subcutaneously in the rat model of pulmonary hypertension on the day 1 (80 mg/kg body weight), selectively injures the vascular endothelium of the lung and induces pulmonary vasculitis, induces muscularization and hypertrophy of the

media in pulmonary arteries, that lead to an increased vascular resistance and increased pulmonary arterial pressure. MCT-induced pulmonary hypertension is associated with the development of the compensated RV hypertrophy, which progresses to the failure within weeks.

In this study, when administered intraperitoneally from Days 1-29, BPC 157 inhibited the development of muscularization and hypertrophy of the media in pulmonary arteries, it prevented pulmonary hypertension and the right heart hypertrophy and failure. A corresponding efficacy profile was also noted for long-term peroral administration of BPC 157 in drinking water from Days 1-29. Moreover, the death rate significantly decreased in those animals treated with BPC 157.

We conclude that BPC 157 prevents development of MCT-induced pulmonary hypertension and cor pulmonale in rats.

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## Literature

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