

Abstract

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Title of rigorous thesis: Study of vasodilatory effect of selected silymarin's flavonolignans *ex vivo* on isolated rat's aorta.

Flavonolignans are a group of compounds which include the complex substance of silymarin, which is found and obtained from a plant named Milk Thistle (*Silybum marianum*). Several studies show its antioxidant and anti-inflammatory effects. Its main effect for which it is used in medicine is hepatoprotective activity. The aim of this work is to find out whether selected flavonolignans of silymarin complex vasoor their sulfated metabolites may have vasorelaxant effects. Five selected substances (2,3 dehydrosilybin, silychristin and their sulfated conjugates 2,3-dehydrosilybin-20-*O*-sulphate, 2,3-dehydrosilybin- 7,20-*O*-disulphate a silychristin-19-*O*-sulphate) were tested *ex vivo* on the Wistar rat aorta. Both tested flavonolignans had vasorelaxant effects comparable to those of the respective monosulfates. In contrast, 2,3-dehydrosilybin disulfate was completely ineffective.