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Effects of hydro-ethanolic extract of berberis vulgaris fruit on rabbit isolated heart

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Abstract

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Several therapeutic effects including antimicrobial, antidiarrhea, hepatoprotection and cardiotoxic for *Berberis vulgaris* have been described. In the present study, the effects of hydro-ethanolic extract of *Berberis vulgaris* on the rate and contractility of isolated heart were examined. The heart mounted on a modified Langendorff apparatus and circulation was perfused through aorta. Heart rate and contractility were determined in the presence of four concentrations of hydro-ethanolic extract (0.5, 1.0, 2.0 and 5.0 mg/100ml) and diltiazem, a calcium channel blocker (0.1, 1, 10 and 100 μ M) in comparison with baseline values in two different groups of experiments as follows: 1) Perfused heart with normal Krebs solution (group 1 experiments, n=10). 2) Perfused heart with calcium free Krebs solution (group 2 experiments, n=9). In group 1 only 3 highest concentrations of diltiazem showed significant reduction in heart rate ($p < 0.05$ to $P < 0.001$). However, 3 highest concentrations of diltiazem showed significant decrease and the last 2 concentrations of hydro-ethanolic extract increased heart contractility significantly ($p < 0.01$ to $P < 0.001$). In group 2 only the last concentration of diltiazem showed significant reduction in heart rate and contractility ($p < 0.05$). The relationship between concentrations of hydro-ethanolic extract and heart rate in both group were negative ($p < 0.01$ to $p < 0.001$). However, there was positive correlation between concentrations of hydro-ethanolic extract and heart contractility. These results showed that of hydro-ethanolic extract of *Berberis vulgaris* has strong effect on heart contractility. The results of the present study may also indicate an activation of the calcium channel of isolated heart by the extract.

Reaxys Database Information

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Author keywords

Berberis vulgaris; Calcium channel blocker; Isolated heart; Rabbit

Indexed Keywords

EMTREE drug terms: alkaloid; calcium; calcium channel; diltiazem; ethanolic extract of berberis vulgaris; unclassified drug

EMTREE medical terms: animal experiment; aorta; article; Berberis; chemical analysis; circulation; citric acid cycle; controlled study; correlation analysis; female; heart muscle contractility; heart perfusion; heart rate; isolated heart; male; nonhuman; rabbit

Chemicals and CAS Registry Numbers: calcium, 7440-70-2; diltiazem, 33286-22-5, 42399-41-7

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- 1 Brauwald, E., Zipes, D., Libby, P. (2001) Heart disease a textbook of cardiovascular medicine, 1, p. 1. USA: W.B.Saunders; 6th ed. P

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