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Vasodilator Effect of Different Extractive Methods of Ginger Extracts on Porcine Coronary Arteries

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An investigation into the vasodilator effects of chloroform, n-butanol and reverse osmosis water extraction of the extracts of ginger (*Zingiber officinale Rosc.*) on porcine coronary arteries.

The right coronary arteries were harvested from a local slaughterhouse , carefully dissected out, and cut into 5-mm rings. All rings were subjected stepwise to a predetermined optimal tension of 3 g and allowed to equilibrate for 30 minutes. After equilibration, each ring was induced contraction by potassium chloride. The vasodilator curves were obtained with 5 cumulative additions of extracts (1, 3, 10, 30 and 100 ppm). Isometric tension was measured using Cyber 380 and Digidata 1320A instruments and readings were recorded in a computer system.

Our result revealed that the extracts of n-butanol and reverse osmosis water extraction had hardly vasodilator effect. The relaxant extents of various doses chloroform extract (1, 3, 10, 30 and 100 ppm) were 6±5、19±10、40±9、70±9、100±0%. The result demonstrates that chloroform extract of ginger possesses vasodilator activity in a dose dependant manner. The possibly physiological relaxation mechanisms involved, vascular protection, scavenging free radicals, anti-oxidative effect, anti-inflammatory activity and related physiological mechanisms will also be surveyed.