
Introduction

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Cardiovascular disease constitutes a major public health concern in industrialized nations as it continues to be the leading cause of death for both men and women accounting for approximately 40% of all annual deaths **(Geneva ., 2005),** it is a combination of multifactorial risk factors including hypercholesterolemia, hypertension, smoking, diabetes, sedentary life style, consumption of high fat diet and stress **(Shuko et al ., 2004) .**Over recent decades, a large body of evidence has accumulated indicating that free radicals play a critical role in cellular processes implicated in many cardiovascular diseases **(Noguchi et al ., 2000),** so it is not surprising that antioxidant therapies are one of the most effective and promising strategies against these diseases **(Matkovics .,2003) .**

Quercetin is one of the most widely distributed bioflavonoids (flavonol) which are abundant in red wine, tea and onions , it possesses many biological activities such as antioxidative **(Chopra et**

al ., 2000), anticarcinogenic **(Caltagirone et al ., 1997)** and enzyme-inhibiting activities **(Conseil et al ., 1998) ,** it also inhibits lipid peroxidation effectively by scavenging free radicals and/or chelating transition metal ions,so it plays important role in prevention of atherosclerosis which is a major risk factor for many cardiovascular diseases like hypertension**(Carolina and Eduardo ., 2004)**, in addition to that the recent laboratory studies demonstrate the important vasorelaxant properties of quercetin **(Duarte et al .,2001)** , so there is a great deal of interest in using antioxidant agents like quercetin to prevent or reduce hypertension **(Geleijnse et al ., 2002).**