

angiotensin, and potassium of both large and small coronary arteries are significantly increased. Another evidence of the correlation between hypomagnesemia and coronary artery spasm is that variant angina has been treated successfully by intravenous magnesium sulfate (Purvis & Movahed, 1992; Fazekas *et al.*, 1993; Rude, 1998; Ho, 2008; Guerrero *et al.*, 2009; An *et al.*, 2014).

1.13.4 Thrombosis

Since the 1950s, it was suggested that parenteral magnesium treatment reduces coronary thrombosis occurrence. Furthermore, recent animal experiments have shown that magnesium salts inhibit adenosine diphosphate (ADP)-induced platelet aggregation, while magnesium infusions have been shown to reduce clotting in preeclamptic patients by reducing certain clotting factors. Another studies have been able to reduce the increased platelet aggregation of diabetic patients by oral supplementation of magnesium. These studies suggests that magnesium supplementation can reduce thrombosis in some patients (Purvis & Movahed, 1992; Rude, 1998; Eilat-Adar *et al.*, 2013; An *et al.*, 2014).

1.13.5 Myocardial Infarction

Magnesium deficiency has been linked with induction of severe vascular damage in the heart, acceleration of the development of atherosclerosis, vasoconstriction of the coronary arteries, increase in blood pressure and enhanced platelet aggregation. Hypomagnesaemia looks to be involved in the pathogenesis of ischemic heart disease by changing lipoprotein composition, predisposing individuals to atherosclerosis. In