

which have been noticed in experimental animals (Fazekas *et al.*, 1993; Cunha *et al.*, 2012). A decline in retinal spasm with magnesium supplementation has also been observed in a group of eight hypertensive patients with elevated renin levels although the systemic arterial pressure did not change.

The relationship between hypertension and intake of dietary cations was reported in many studies, of them, a number of studies reported a strong significant inverse correlation between magnesium levels and both systolic and diastolic blood pressure values. Nevertheless, other studies have found varying relations. Other studies were conducted to assess magnesium levels in untreated hypertensive patients in comparison with normotensive individuals, likewise, increased, decreased and same magnesium levels were observed (Joffres *et al.*, 1987; Chakraborti *et al.*, 2002; Eilat-Adar *et al.*, 2013).

However, a comprehensive review of the epidemiologic and clinical evidence studying the correlation between magnesium deficiency and blood pressure concluded that the evidence was insufficient to prove a link between magnesium status and hypertension. Furthermore, studies have shown no overall improvement in the systemic arterial pressure of otherwise untreated hypertensive patients with magnesium supplementation. Nevertheless, there is an evidence that suggests that magnesium status may be important in some hypertensive patients. Another approved correlation was the inverse correlation between systemic arterial pressure and intracellular magnesium levels in patients with a family history of hypertension, nevertheless, this result was not found in patients with no family history of hypertension (Chakraborti *et al.*, 2002; Qu *et al.*, 2013; Nicklas *et al.*, 2014).