Letter to the Editor

Author’s reply

Ragnar Rylander raises an interesting point about correcting for dietary magnesium in assessing preeclampsia/eclampsia risk. Magnesium is an essential mineral required for regulation of body temperature, nucleic acid, and protein synthesis and in maintaining nerve and muscle cell electrical potentials. Many women, especially those from disadvantaged backgrounds and in low- and middle-income countries, have low intakes of magnesium. Magnesium supplementation during pregnancy may be able to reduce fetal growth restriction and preeclampsia, and increase birth weight. Dietary magnesium thus been proven to be an important dietary element that has been related to hypertension, preeclampsia and eclampsia in research conducted in the West (Franz, 1987; Jain et al., 2010; James and Nelson-Piercy, 2004; Rylander, 2014). A study by Jain et al. (2010) showed that a reduction in the serum levels of calcium, magnesium, and zinc during pregnancy might be a possible contributor in the etiology of preeclampsia, and supplementation of these elements to diet may be of value to prevent preeclampsia. Another Indian study (Lambe et al., 2014) concluded that serum calcium, magnesium, and zinc can be considered as factors having a role in the etiopathogenesis of preeclampsia and as severity indicators in preeclamptic women.

However, a recent Cochrane review (Makrides et al., 2014) reports that there is not enough high-quality evidence to show that dietary magnesium supplementation during pregnancy is beneficial. Randomized and quasi-randomized trials assessing the effects of dietary magnesium supplementation during pregnancy were included in the review. In the analysis of all trials, oral magnesium supplementation compared with no magnesium was associated with no significant difference in preeclampsia risk (RR:0.87; 95%CI:0.58–1.32; three trials, 1042 women). Of the 10 trials included in the review, only two were judged to be of high quality overall. When an analysis was restricted to these two trials, none of the review’s primary outcomes including preeclampsia were significantly different between the magnesium supplemented and control groups. A recent study (Gol Mohammadlou et al., 2008) involving Iranian women also found that the mean serum levels of calcium, magnesium, copper, and zinc between the preeclamptic patients in their third tri-

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