Electrolyte supplementation drinking and renal failure

To the Editor: I read with great interest the article on the possible relationship between electrolyte supplementation drinking and renal failure.[1] Based on the four indexed cases, Boulter *et al*. concluded that 'caution should be advised regarding liberal use of the product during prolonged exercise, despite ingested doses not reaching "toxic" dosages, based on current AI or UL recommendations'.[1] I agree with this precaution and their recommendation to study the genetic predisposing factor. However, there should also be concern about electrolyte supplementation and the product. Whether the product is contaminated or produced under acceptable standards, a quality control system should be traced. Based on a recent Canadian report, the contamination of several unwanted elements has occurred in oral electrolytes and other solutions.[2]

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1. Boulter J, Noakes TD, Hew-Butler T. Acute renal failure in four Comrades Marathon runners ingesting the same electrolyte supplement: Coincidence or causation? S Afr Med J 2011;101:876-877.
2. Dabeka R, Fouquet A, Belisle S, Turcotte S. Lead, cadmium and aluminum in Canadian infant formulae, oral electrolytes and glucose solutions. Food Addit Contam Part A Chem Anal Control Expo Risk Assess 2011;28(6):744-753.

Boulter *et al*. reply: Professor Wiwanitkit's point is well made. Electrolyte supplementation is unnecessary, even during prolonged exercise.[1] Consequently, there is never any good reason to risk the ingestion of products that could be contaminated because they were produced under conditions of unknown quality control.

1. Noakes TD. Changes in body mass alone explain almost all of the variance in the serum sodium concentrations during prolonged exercise. Has commercial influence impeded scientific endeavour? Br J Sports Med 2010;45:475-477. Epub 22 Nov 2010.