Metabolic alkalosis: A less appreciated side-effect of imipenem cilastatin use-author's reply

Sir,

We would like to thank the authors[1] for their interest and valuable comments on our article about metabolic alkalosis with imipenem-cilastatin.[2] We agree that piperacillin-tazobactam can be associated hypokalemia and metabolic alkalosis,[2] but we believe that there has been no study that conclusively proved the association of metabolic alkalosis with imepenem-cilastatin/piperacillin-tazobactam and the available literature has only hypothesized this association. Zaki and Lad,[3] as in our study have hypothesized the association of metabolic alkalosis with the antimicrobial agents supported only by fact that the metabolic alkalosis subsided upon discontinuation of the concerned antimicrobial agents. Again, unlike the metabolic alkalosis and hypokalemia associated with piperacillin-tazobactam[3] in our case the patients had metabolic alkalosis with normal serum potassium levels and they did not subsequently have metabolic alkalosis with use of piperacillin-tazobactam. Antibiotics (i.e. carbenicillin, ampicillin, penicillin etc.) are classified sometimes as one among miscellaneous causes of metabolic alkalosis.[4] This highlights the importance of a more in-depth study that might identify the exact mechanism of metabolic alkalosis associated with these antimicrobial agents and explain the presence/absence of hypokalemia. So in the absence of a definitive explanation sometimes the so called "ironical" approach (as mentioned by the authors) might work while dealing with patients with unexplained metabolic alkalosis.

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