PREDICTING SITE OF GI BLEEDS

Dear Editor,

Elevation of blood urea out of proportion to creatinine has been constant observation in upper GI haemorrhage [1,2]. In the series studied by the author (MJAFI 1997; 53: 27-9) there were 14 cases of low GI bleeding of which 11 were colonic lesions. Melena is less commonly observed in these lesions and absorption of nutrients including blood products is minimal from the colon [3]. This could partly explain the low U:C ratio in these cases. A series of more jejunal and ileal lesions would have shown higher urea levels and the cut-off levels may have to be further raised to distinguish upper from lower GI sources of bleeding based on U:C ratio

Lt Col RG PODUVAL^{*}, Lt Col BAK PRASAD[†]

^{*}Classified Specialist (Medicine),

[†]Classified Specialist (Physiology), OIC HAMRC,
153 General Hospital,
C/o 56 APO

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Authors reply

Dear Editor,

I would like to thank Lt Cols RG Poduval and BAK Prasad for their comments on my article on the usefulness of Urea:Creatinine (U:C) ratio in predicting the site of gastrointestinal bleeding [1]. I agree with their suggestion that analysis of U:C ratio in more patients will enlighten us better. Indeed, this has been my own concluding sentence in the article under reference [1].

A couple of clarifications are in order. Understandably, melena is more common in patients with bleeding from the upper gastrointestinal tract. However, bleeding lesions in the ascending colon may also cause melena, providing gastrointestinal transit time is sufficiently prolonged [2]. While it is true that absorption of nutrients is poor from the colon, ammonia (resulting from bacterial breakdown of blood products in the small bowel) reaching the colon does get absorbed leading eventually to some increase in the circulating urea levels [3]. Urea levels in blood however do not rise indiscriminately unless the glomerular filtration rate is less than 50 per cent of normal or there is significant urine outflow obstruction [3]. In other words, in patients with normal renal function and outflow tract, blood urea levels plateau off despite increased absorption from the bowels, as urea is freely

excreted in urine. Thus a higher cut-off value may in fact lead to some upper gastrointestinal bleeding lesions being missed.

I am currently prospectively studying U:C ratios in patients with established upper and lower gastrointestinal bleeding, and this will no doubt help in evaluating the cut-off level.

Lt Col KM HARIKRISHNAN^{*}

^{*}Surgical Gastroenterologist & Endoscopist
Command Hospital (SC)
Pune 411040

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