

Milky urine: A real cause of concern

Sir,

We read with great interest the article, 'Milky urine! A cause of concern?'^[1] by Punj *et al.* The author's experience of finding milky urine associated with hyperuricosuria is unnerving and we thank them for bringing it forth to our notice. However, the authors have overlooked an important differential diagnosis which is associated with high morbidity and mortality.

Tumour lysis syndrome (TLS) is usually associated with rapidly proliferating tumours. Initiation of chemotherapy, radiotherapy, steroid treatment, or anaesthesia may trigger TLS, or it may develop spontaneously. The release of massive quantities of intracellular contents may produce hyperkalaemia, hyperphosphatemia, secondary hypocalcaemia, hyperuricemia, hyperuricosuria and acute renal failure.^[2] There have been reports documented wherein a patient taken up for non-cancer surgeries have presented with hyperuricosuria, the tumour being undiagnosed.^[3-5] Untreated TLS can be fatal due to severe biochemical disturbance causing cardiac dysfunction and multi-organ failure.^[3,6] Numerous investigations need to be carried out, with no specificity, but vigilance on part of anaesthesiologists and intensivists helps reduce morbidity.

We had an unfortunate experience in a 35-year-old female, case of carcinoma (CA) ovary, who had received one cycle of chemotherapy, operated for insertion of 'Hickman Port' for chemotherapy. The patient was induced with regular dose of propofol, fentanyl and rocuronium as muscle relaxant anaesthesia was maintained with isoflurane and oxygen-nitrous oxide mixture. The patient had a delayed awakening, episode of post-operative tetany and milky urine. She had to be ventilated until next post-operative day. Investigations showed decreased ionised calcium levels, increased uric acid levels, urine showed hyperuricosuria, but all other investigations were normal including serum potassium, serum phosphate levels. Urine output was adequate, but milky. Adequate hydration, allopurinol and continuous monitoring stabilised patient's condition. Spontaneous TLS or due to anaesthesia is known to occur and is worth investigating. Caution on the part of entire team should be exercised because it could imply an innocuous, self-limiting cause like

total intravenous anaesthesia (TIVA) or a potentially fatal cause like TLS.

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