

Letter to the Editor

Excellent response of solifenacin in chemotherapy-induced hemorrhagic cystitis in a child with non-Hodgkin's lymphoma

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Dear Editor,

A 5-year-old child was a case of high grade B cell non-Hodgkin's lymphoma on regular follow-up. On the 9th day, post 2nd cycle of chemotherapy, the child was admitted to pediatric oncology unit with the complaints of severe lower abdominal pain, burning micturition, red color urine with increased urinary frequency, vomiting, and poor oral intake. Urine culture was sterile. USG-KUB suggested changes of cystitis with no clots and no obvious obstructive uropathy. Urine routine microscopy detected red blood cells 18–20/HPF. In view of clinical diagnosis of chemotherapy-induced hemorrhagic cystitis^[1] (HC), the child was treated with hydration^[2] and Mesna (sodium 2-mercaptoethane sulfonate) 200 mg 6 hourly and oxybutynin dose 2.5 mg in day and 1.25 mg in night. Due to inadequate pain relief, the patient was referred to pain outpatient department. The child had severe suprapubic pain more while passing urine which was burning in nature. In view of the refractory overactive bladder, tablet solifenacin 1.25 mg OD was given to child with marked pain relief within 3–4 h.

HC is a relatively common complication of chemotherapy and radiotherapy to pelvic area but sometimes challenging to treat. Solifenacin is a medicine of the antimuscarinic class, (a competitive cholinergic receptor antagonist), selective for the M3-receptor subtype. The binding of acetylcholine to these receptors, particularly M3, plays a critical role in the contraction of smooth muscle. By preventing the binding of acetylcholine to these receptors, solifenacin reduces smooth muscle tone in the bladder, allowing the bladder to retain larger volumes of urine and reduces the frequency of micturition, urgency, and incontinence episodes solifenacin was developed for treating overactive bladder with associated problems such as increased urination and urge incontinence. Solifenacin^[3] appears

to have better tolerability than immediate-release oxybutynin.

Even in a pediatric patient with overactive bladder, refractory to oxybutynin/mesna can be safely treated with solifenacin to relieve symptoms.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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