Re: Interleukin-11 Attenuates Ifosfamide-Induced Hemorrhagic Cystitis

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To the Editor:

The study was conducted to investigate the anti-inflammatory effect of rhIL-11 used in prophylaxis of ifosfamide-induced hemorrhagic cystitis in an animal model. There has been no publication on the use of rhIL-11 in prophylaxis of hemorrhagic cystitis in the literature previously.

The study design and methods used in this experiment were chosen and are presented correctly. Although the studied groups (each consisted of 6 mice) were rather small, the statistical methods used in this publication are adequate to the number of animals used.

I do not completely agree with the statement, that there are no adequate methods that prevent hemorrhagic cystitis induced by oxazaphophosphorine agents (such as cyclophosphamide or ifosphamide). Several studies indicate the use of hyperhydratation (which shortens the exposition time to urotoxins) and mesna (which binds acroleine, responsible for bladder mucosa damage) considerably reduces the incidents of early-onset toxic hemorrhagic cystitis even in patients receiving high-dose chemotherapy (1). Early-onset hemorrhagic cystitis is not a major clinical issue nowadays. Its rate presented in many studies is lower than the 33% quoted by the authors basing on one publication (2-6). However, prevention of late-onset hemorrhagic cystitis related to the reactivation of viruses (mainly human polyoma BK virus), in patients after allogeneic stem-cell transplantation, still remains an unsolved problem (3,7,8-10). One may speculate that the initial bladder mucosa damage caused by cytostatics used in conditioning regimens may play a role in the occurrence of virus induced hemorrhagic cystitis (10). It has been documented in many publications that not oxazaphophosphorine drugs, but rather busulfan is currently the main agent identified as a risk factor for hemorrhagic cystitis (5,6,9,11). No specific prophylactic measures protecting the bladder from busulfan toxicity exist so far. This is the reason why investigation of methods that may prevent from cytostatic-induced urothelium damage remains a challenge.

In this context, the results presented by the authors are encouraging and justify the use of rhIL-11 in clinical trial in human hemorrhagic cystitis.

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