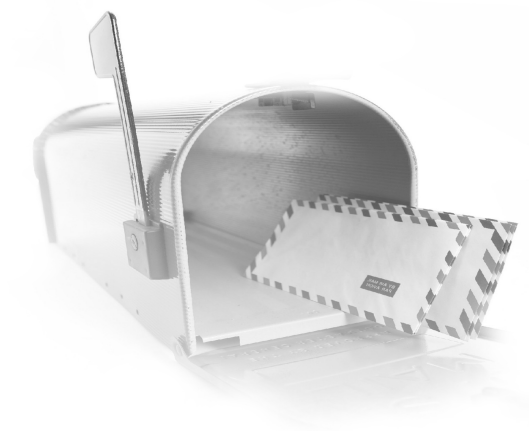

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Letter to the Editor

Concerns in assessing risk factors for herpes zoster infection in multiple myeloma patients

TO THE EDITOR: Recent developments of new agents such as bortezomib and high-dose chemotherapy followed by stem cell transplantation for multiple myeloma have improved the outcome of patients. However, it has also been reported that these therapies have impacted predisposing patients to various opportunistic infections [1]. A recent report of "The risk factors for herpes zoster in bortezomib treatment in patients with multiple myeloma" by Yi et al. has showed that the bortezomib itself might act as a risk factor for herpes zoster [2]. The authors additionally concluded that the patients with low absolute lymphocyte counts (ALCs) at the time of bortezomib treatment initiation were at greater risk of herpes zoster during bortezomib treatment.

I would like to comment several viewpoints on this interesting article. Recent report of seroprevalence of Varicella-Zoster virus (VZV) in Korea showed that overall 87.6% had anti-VZV IgG antibody among the 887 patients [3]. And the seroprevalence rate exceeded 90% in subjects over 11 years of age. With consideration of VZV vaccine availability in Korea, adults over 20 years who were not vaccinated and were seropositive by nautral infection of varicella, were more likely to have been the source of herpes zoster. Even though Yi et al. looked through the history of herpes zoster, prior history of varicella or antibody for VZV would be needed to see the potential risk factors for herpes zoster more precisely during the bortezomib therapy.

In addition, 91.7% of herpes zoster positive group and 90.8% of herpes zoster negative group were also treated with dexamethasone in this study. Only 8.3-9.3% of patients were treated with bortozomib for itself. Not only bortezomib but also corticosteroid could have a role for the development of herpes zoster. And Chanan-Khan et al demonstrated ALCs and absolute neutrophil counts (ANCs) were comparable between patients regardless of herpes zoster state [4]. Notably the median ALCs and ANCs measured at the closest time point before the herpes zoster were significantly lower in bortezomib-treated patients compared with dexamethasone-treated patients. Therefore, the correlation of lower ALCs at the time of bortozomib treatment initiation and the risk of herpes zoster in this study should be interpreted carefully. There are reports that overall incidence (7-13%) of herpes virus infections during the treatment of bortezomib appears to be similar to the incidence of those infections in myeloma, especially in the setting of advanced diseases and in patients treated with steroid [5]. Considering the high seroprevalence of VZV in Korea, 16.7% of incidence of herpes zoster in this study was not so surprisingly high.

I hope the studies of infectious complications including herpes zoster during the new era of multiple myeloma treatment extend widely and these efforts could give the chance to find out the novel prophylactic strategy for the prevention of infection finally.

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1. Nucci M, Anaissie E. Infections in patients with multiple myeloma in the era of high-dose therapy and novel agents. Clin Infect Dis 2009;49:1211-25.
2. Yi YS, Chung JS, Song MK, et al. The risk factors for herpes zoster in bortezomib treatment in patients with multiple myeloma. Korean J Hematol 2010;45:188-92.
3. Choi WS, Noh JY, Huh JY, et al. Seroprevalence of varicella-zoster virus in Korea. J Med Virol 2010;82:2123-6.
4. Chanan-Khan A, Sonneveld P, Schuster MW, et al. Analysis of herpes zoster events among bortezomib-treated patients in the phase III APEX study. J Clin Oncol 2008;26:4784-90.
5. Dasanu CA, Alexandrescu DT. Does bortezomib induce de facto varicella zoster virus reactivation in patients with multiple myeloma? J Clin Oncol 2009;27:2293-4.