The Authors’ Reply to “The Addition of Prophylactic Antibiotics Can Achieve a Favorable Outcome”

Key words: sulfamethoxazole/trimethoprim, fluoroquinolone, immunosuppressive, Stenotrophomonas maltophilia

The Authors Reply

We appreciated the constructive comments by Fukuchi et al. concerning prophylactic antibiotics in our case (1). As they pointed out, one tablet of sulfamethoxazole/trimethoprim (SMX/TMP) a day to prevent Pneumocystis jirovecii pneumonia should have been considered for our patient receiving high-dose corticosteroids. In several cases, however, clinicians avoid administering SMX/TMP in allogeneic hematopoietic stem cell transplantation (allo-HSCT) recipients because of the possible adverse effects, including skin eruption, bone marrow suppression, and renal impairment (2). In the present case, 1,500 mg/day of atovaquone was prescribed as an alternative for P. jirovecii pneumonia prophylaxis in order to avoid potential bone marrow suppression with SMX/TMP administration. Before hospitalization, a patient with underlying bronchiolitis obliterans was prescribed amoxicillin/clavulanate for bronchopneumonia because oral pathogens had been detected in bronchoscopy specimens.

Although a recent systematic review and meta-analysis showed that fluoroquinolones have comparable effects on the mortality in cases of S. maltophilia infection as TMP/SMX, a sub-group analysis of patients with hematologic malignancies or neutropenia was not performed (3). In addition, several studies have shown that patients with hematologic malignancies are at risk of developing S. maltophilia infection even under treatment with levofloxacin or SMX/TMP at prophylactic doses (4, 5). Therefore, although SMX/TMP and fluoroquinolone have in vitro efficacy against S. maltophilia, whether or not these agents can prevent S. maltophilia infections in a severely immunocompromised population, especially neutropenic patients after allo-HSCT, remains unclear.

In the present case, we speculate that host-based factors, including mucositis and the neutropenic period after salvage chemotherapy following second allo-HSCT, were key to the development of fatal enterocolitis caused by S. maltophilia, regardless of prophylactic antibiotics.

The authors state that they have no Conflict of Interest (COI).

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References


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