Aeromonas sobria bacteriemia in an acute lymphoblastic leukemia case in remission

Remisyondaki akut lenfoblastik lösemi olgusunda Aeromonas sobria bakteriyemisi

Selami Koçak Toprak, Gül İlhan, Elçin Erdoğan, Sema Karakuş
Department of Hematology, School of Medicine, Başkent University, Ankara, Turkey

To the Editor,

Herein we present an acute lymphoblastic leukemia (ALL) case that developed Aeromonas sobria bacteriemia while undergoing consolidation treatment. In malignant hematologic diseases Aeromonas-type microorganisms are rarely encountered agents of opportunistic bacterial infection during the neutropenic period following chemotherapy [1]. A 17-year-old male patient that presented to our outpatient clinic with malaise and abdominal pain was diagnosed as ALL and the BFM95 chemotherapy protocol was commenced. A chemotherapy combination given for consolidation resulted in severe back and abdominal pain on the 21st d. The pain subsided without acute surgical intervention and mixed-type neuropathy -particularly drug-related -was considered and therefore vincristine (Vincristine Amphar Flacon 1 mg; Atabay) treatment was not continued. The patient had fever on the 30th d of the consolidation protocol, and iv imipenem (Tienam-IV Flacon 500 mg; MSD) 4×500 mg d^{-1} was added to the treatment after the required cultures were obtained. The following day his fever persisted and hypoxemia developed along with deterioration of his general health status; therefore, iv vancomycin (Edicin Flacon 0.5 g; Sandoz) 2×1 g d^{-1} and iv ciprofloxacin (ciprofloxacin infusion, 400 mg, Biofarma) 2×400 mg d^{-1} iv were started. Nonetheless, the patient's renal function deteriorated along with an associated decrease in blood pressure, and, therefore, vancomycin (Edicin Flacon 0.5 g, Sandoz) was withdrawn and iv linezolid (Zyvoxid İnfusion Solution mg mL^{-1}, Pfizer) 2×600 mg d^{-1} was started. As the patient's general health status showed no improvement, he was referred to the intensive care unit. The patient's fever remained unresponsive and the patient died on the 32nd day of the consolidation treatment due to sepsis. The results of blood cultures obtained during febrile neutropenia showed that Aeromonas sobria was sensitive to the antibiotics that the patient was already taking. Written informed consent was obtained from the patient's family.

Although in neutropenic and immunocompromised patients Aeromonas-type bacteria generally lead to uncomplicated bacteriemia with an unknown

Address for Correspondence: M.D. Selami Koçak Toprak, Department of Hematology, School of Medicine, Başkent University, Ankara, Turkey
Phone: +90 532 656 02 06 E-mail: sktoprak@yahoo.com
doi:10.5152/tjh.2011.13

focus of infection, various skin and soft tissue infections have also been observed [1]. Among these are localized cellulitis, ecthyma gangrenosum, and clostridium-like gangrenous cellulitis. Martino et al. reported that at their department in Spain Aeromonas bacteriemia was seen in only 4 patients with hematologic malignancies [1]. In healthy humans, it has been observed that local inoculation enables to skin and soft tissue infections due to Aeromonas, while in immunocompromised cases evidence of such access cannot always be found. Nevertheless, almost 2 decades ago Sherlock et al. reported that in neutropenic cancer patients intestinal colonization of Aeromonas-type bacteria increase just as other gram-negative bacteria, and that this could be why bacteriemia is observed in such patients [2]. Indeed, it is currently thought that Aeromonas is translocated to the blood from its primary intestinal localization via the bile ducts and intestine [3].

Aeromonas is a rarely encountered infectious agent that is taken into the body via contaminated food and drink. We think the presented case that died due to Aeromonas-related sepsis is noteworthy because of the unusual agent involved and its unusual pathway.

Conflict of interest statement

None of the authors of this paper has a conflict of interest, including specific financial interests, relationships, and/or affiliations relevant to the subject matter or materials included.

References

1. Martino R, Santamaria A, Pericas R, Sureda A, Brunet S. Acute rhabdomyolysis and myonecrosis complicating Aeromonas bacteremia n neutropenic patients with hematologic malignancies: report of two cases. Haematologica 1997;82:692-4.
2. Sherlock CH, Burdge DR, Smith JA. Does Aeromonas hydrophila preferentially colonize the bowels of patients with hematologic malignancies? Diagn Microbiol Infect Dis 1987;7:63-8. [CrossRef]
3. Thomsen RN, Kristiansen MM. Three cases of bacteraemia caused by Aeromonas veronii biovar sobria. Scand J Infect Dis 2001;33:718-9. [CrossRef]