

Nosocomial infection of extensively drug-resistant *Myroides odoratimimus* in a Turkish hospital

Unsal Savci¹, Baris Eser¹, Mustafa Sungur², Mustafa Sahin¹, Nezahat Kosar³, Djursun KARASARTOVA⁴, Ayse Semra GURESER⁵, Aysegul Taylan-Ozkan⁶, Selahattin Caliskan⁷, Serap Suzuk Yildiz⁸, Fatma Bayrakdar⁹, Yasemin Numanglu Cevik⁸, Coskun Kaya¹⁰, Derya Yapar¹¹, and Ozlem Akdogan¹²

¹Hitit University

²Eskişehir State Hospital

³ Hitit University, Turkey

⁴Hitit Universitesi

⁵Hitit University, Faculty of Medicine

⁶Hitit University, Turkey

⁷Reyap Hospital, Department of Urology

⁸Public Health Institutions of Turkey

⁹ Public Health Institutions of Turkey, Ankara, Turkey.

¹⁰Eskisehir City Hospital, Department of Urology

¹¹Hitit University Faculty of Medicine, Turkey.

¹² Hitit University Faculty of Medicine, Turkey.

October 17, 2020

Abstract

Objectives: *Myroides* spp. is an environmental pathogen and causes disease in immunocompromised patients. In this study, we report an outbreak of urinary tract infections caused by *M. odoratimimus* in a university hospital in Turkey. **Methods:** A total of 25 *M. odoratimimus* strains isolated from the clinical samples of 20 patients in our intensive care units and clinics were included in the study. Phenotypic and genotypic identification of isolates was performed using conventional methods, VITEK®-2 automated identification system, Matrix Assisted Laser Desorption/Ionisation-Time of Flight Mass Spectrometry and 16S-RNA Microbial Diagnosis methods. In addition, Repetitive Extragenic Palindromic Elements (REP) PCR Assay method was applied for molecular epidemiological analysis. **Results:** All cases were diagnosed with nosocomial urinary tract infection, except for one case diagnosed with nosocomial bacteraemia. One of the *M. odoratimimus* isolates was sensitive to piperacillin/tazobactam (MIC: [?]4 µg/ml) and one isolate was moderately sensitive to cefepime (MIC: 16 µg/ml). Other *M. odoratimimus* isolates were resistant to the tested antibiotics of beta lactams, monobactams, carbapenems, aminoglycosides, fluoroquinolones and sulphonamides. When 10 isolates were evaluated with the REP PCR method, DNA finger print similarities were visually determined and there was a similar DNA pattern among them. *Myroides* source was not detected in environmental samples. **Conclusion:** Clinicians should consider that *Myroides* spp. isolates with multiple and broad-spectrum drug resistance may be a serious nosocomial pathogen like *Pseudomonas aeruginosa* or *Acinetobacter baumannii*. In order to choose the best treatment regimen, this atypical pathogen needs to be quickly identified and antibiotic susceptibility tests performed.

Hosted file

Main text.pdf available at <https://authorea.com/users/368008/articles/487263-nosocomial->

[infection-of-extensively-drug-resistant-myroides-odoratimimus-in-a-turkish-hospital](https://doi.org/10.22541/au.160293963.31637691/v1)

Hosted file

table 1.pdf available at <https://authorea.com/users/368008/articles/487263-nosocomial-infection-of-extensively-drug-resistant-myroides-odoratimimus-in-a-turkish-hospital>

Hosted file

Table 2.pdf available at <https://authorea.com/users/368008/articles/487263-nosocomial-infection-of-extensively-drug-resistant-myroides-odoratimimus-in-a-turkish-hospital>

Hosted file

Table 3.pdf available at <https://authorea.com/users/368008/articles/487263-nosocomial-infection-of-extensively-drug-resistant-myroides-odoratimimus-in-a-turkish-hospital>

Hosted file

Table 4.pdf available at <https://authorea.com/users/368008/articles/487263-nosocomial-infection-of-extensively-drug-resistant-myroides-odoratimimus-in-a-turkish-hospital>

Hosted file

Table 5. The incidence of *Myroides* spp. infections by months (1).pdf available at <https://authorea.com/users/368008/articles/487263-nosocomial-infection-of-extensively-drug-resistant-myroides-odoratimimus-in-a-turkish-hospital>

