Fatal bacteremia caused by Pantoeaagglomerans in a critically ill patient.

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ABSTRACT

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We present a case report concerning fatal bacteremia caused by Pantoeaagglomerans in a critically ill patient.

INTRODUCTION

Pantoea is a genus of *Enterobacteriacae* Gram-negative bacteria family that includes at least 20 species; mostly isolated in the ecological niches. Data about its role as pathogen are limited[1]. μορφών.

CASE REPORT

A 65 year old female, was admitted to our Intensive Care Unit (ICU) after developing acute respiratory failure due to septic shock following 4 days hospitalization in internal medicine department for community acquired pneumonia. Her medical history included morbid obesity (BMI 55.1 kg. m^{-2}), smoking (50 pack-years), chronic obstructive pulmonary disease, arterial hypertension and depression; all under medication, however with bad compliance. On admission herAcute Physiology, Age, Chronic Health Evaluation IV score (APACHE IV) score was 129.

During her 107 days ICU hospitalization, the patient developed series of septic episodes with several microorganisms isolated from various samples (Table 1).

Antibiotic and supportive therapy strategy followed, managed successfully all spotted infections; yet, the patient died 9 days after *Pantoeaagglomerans bacteremia* and even though antibiogram revealed a sensitive strain. Concurrent laboratory examination for any possible medical equipment *Pantoea* contamination turned out negative.

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Table1. Isolated bacteria during patient's hospitalization, along with location spotted, selected laboratory results and antibiotic regiment followed.

DATE	BACTERIA	SOURCE	WBC	CPR	PCT	ANTIBIOTIC	MIC
04/02/2019	-	-	19.4	12.7	0.2	moxifloxacin	Emp.th
						clarithromycin	Emp.th
08/02/2019	Ac.baum.	bs	53.3	40.6	17.5	colistin	<0.5
	Ac.baum.	blood				colistin	<0.5
						teicoplanin	Emp.th
20/02/2019	Ac.baum.	blood	17.1	2.3	0.4	colistin	<0.5
	Stlugd	blood					
	E.faecalis	blood				linezolid	2
21/02/2019	Ac.baum.	bs	15.63	2.7	0.19	colistin	<0.25
25/02/2019	M morg	blood	14.08	8.8	0.34	meropenem	<0.25
	Psaer	cvc					
	Ac.baum.	cvc					
27/02/2019	Psaer(MBL)	bs	10.9	10.7	0.8	colistin	<0.5
	Ac.baum.	bs				colistin	<0.5
03/03/2019	Prst	cvc	7.9	34	1.27		
	St. haem	cvc				voncon	1
06/03/2019	St. haem	blood	7.	16	0.99	voncon	1
15/03/2019	Pr. mir.	bs	8.99	11.3	0.34	amikacin	<2
	Prst	bs				amikacin	<2
21/03/2019	Kl. pn.		13.5	5	0.21	amikacin	<2
22/03/2019	Ps.aer/Ac.bau	bs	16.02	8	0.24	colistin	<0.25
	Ac.baum.	cvc					
27/03/2019	Psaer(MBL)	bs	14.200	15.3	0.61	colistin	<0.5
15/04/2019	Prst	bs	15.100	18	0.49	aztreonam	2
	Ac.baum.					meropenem	<0.25
27/04/2019	Ac.baum.	p ulcer	11430	5.8	0.5	colistin	<0.5
	Kl. pn.	p ulcer				gentamicin	<1
02/05/2019	Ac.baum.	cvc	11820	15.3	0.29	colistin	<0.5
						tigecycline	8
09/05/2019	Pantoeaspp.	blood	9.690	13.6	0.21	ciprofloxacin	<0.25

WBC: white blood count (k/μL), CPR:C-reactive protein (mg/dl), PCT: procalcitonin (ng/dl), MIC: minimum inhibitory concentration, Ac.baum: Acinetobacter baumanii, St.lugd: Staphylococcus lugdonensis, E.faecalis:Enterococcus faecalis, M.morg: Morganella morganii, Ps. aer: Pseudomonas aeruginosa, Kl.pn: Klebsiella pneumoniae, St. haem: Staphylococcus haemolyticus, Pr.mir:Proteusmirabillis, Pr.st: Providencia stuartii, CVC: central venous catheter, bs: bronchial secretions, p ulcer: pressure ulcer, Emp.th: empiric therapy.

In most literature reports the clinical course of the hospital-acquired disease was mild and application of the proper antibiotic treatment led to full recovery[1]. Fatal cases are mainly described with in epidemics of nosocomial septicemia caused by contamination of medical equipment or fluids[2]. Most of the reports regard pediatric population, especially newborns[3-4], while data about similar adult cases are limited[5-6]. The present case is presumably due to the decline of patients' immunity caused by underlying disease and/or hospital procedures. Other *Pantoeaspp* identified as pathogens in adults is *Pantoea dispersa*[7-8]. Nevertheless, in the era of multiresistant bacteria, similar reports alert clinicianσ about the possibility of more frequent emerge of this type of infections.

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Author Disclosures:

Authors Karakosta P, Agaliadou-Dioritou U and Aslanidis Th have no conflicts of interest or financial ties to disclose.

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