

P1967 Prognostic factors for septic shock patients with reduced ejection fraction heart failure

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Background: Herein, we aimed to evaluate the prognostic factors for septic shock cases in terms of mortality and effecting variables within heart failure patients group in a tertiary-care educational hospital.

Materials/methods: Patients with septic shock (sepsis+hypotension+adrenergic agent) with heart failure (which is defined as a clinical syndrome that results from any structural or functional impairment of ventricular filling or ejection of blood in the terms of ejection fraction $\leq 35\%$ on echocardiography) and consulted by Infectious Diseases consultants between 14th Dec 2013 and 15th October 2017 in our center were followed up prospectively. The patients were evaluated following the first visit at day 3-14 and 30. Arterial lactate level of $>2\text{mg/dL}$ criterion was added for septic shock according to 3rd International Sepsis and Septic Shock Consensus Statement after 23rd Feb 2016. Statistical analysis was performed via Chi square test and a p value less than 0.05 was considered significant.

Results: There were a total of 60 patients (mean age 65.63 ± 15.55 years, 53% female). Mean CRP, leukocyte count and procalsitonin levels were 12.14 ± 9.74 mg/dl, $15448 \pm 6853/\text{mm}^3$ and 21.37 ± 30.03 , respectively. Hospital-acquired septic shock comprised 61.6% (37/60). Microbiological etiology was elucidated in 32 cases and the most common pathogens were *P. aeruginosa* (n:6) and *Klebsiella spp.* (n:6). In 47 out of 53 cases arterial lactate level was higher than 2 mg/dL but mortality among them was not significantly different (36/47 vs 5/6, $p=0.710$). Mortality was significantly higher in 46 patients with qSOFA score ≥ 2 and (40/46 vs 6/14, $p=0.001$) and in qSOFA=3 (21/23 vs 25/37, $p=0.035$). Day 30 mortality was significantly higher in cases with SIRS score (temperature $>38^\circ\text{C}$ or $<36^\circ\text{C}$, heart rate >90 , respiratory rate >20 or $\text{PaCO}_2 < 32\text{mmHg}$, $\text{WBC} > 12000/\text{mm}^3$, $< 4000/\text{mm}^3$, or $> 10\%$ bands) > 3 (Table 1). Overall mortality at the 72th h, day 14 and 30 were 41.6%, 73.3% and 76.6%, respectively. Colistin including empirical antibiotic regimens versus other antibiotic regimens were not different in terms of 30th day mortality (15/16 vs 31/44, $p=0.0858$).

Conclusions: Mortality is quite high in this group of septic shock cases while it is even higher in qSOFA score ≥ 2 or SIRS score > 3 as well as colistin-receiving cases.

Table 1. Results

Variables	Day 3 Mortality	Day 14 Mortality	Day 30 Mortality
Lactate >4	11/18 vs 11/35 (p=0.038)	16/18 vs 24/35 (p=0.104)	16/18 vs 25/35 (p=0.150)
Lactate >2	20/47 vs 2/6 (p=0.666)	35/47 vs 5/6 (p=0.635)	36/47 vs 5/6 (p=0.710)
Q sofa=3	11/23 vs 14/37 (p=0.445)	20/23 vs 24/37 (p=0.060)	21/23 vs 25/37 (p=0.035)
Q sofa=2	12/24 vs 13/36 (p=0.285)	19/24 vs 25/36 (p=0.404)	20/24 vs 26/36 (p=0.319)
Q sofa=1	2/13 vs 23/47 (p=0.030)	5/13 vs 39/47 (p=0.001)	5/13 vs 41/47 (p=0.001)
SIRS score=4	8/16 vs 17/44 (p=0.430)	16/16 vs 28/44 (p=0.005)	16/16 vs 30/44 (p=0.010)
SIRS score=3	12/23 vs 13/37 (p=0.193)	16/23 vs 28/37 (p=0.603)	17/23 vs 29/37 (p=0.691)
SIRS score=2	3/14 vs 22/46 (p=0.079)	9/14 vs 35/46 (p=0.382)	9/14 vs 37/46 (p=0.211)
Microbiologically confirmed septic shock	11/32 (p=0.221)	24/32 (p=0.755)	25/32 (p=0.775)
Microbiologically unconfirmed septic shock	14/28 (p=0.221)	20/28 (p=0.755)	21/28 (p=0.775)
Adequate antimicrobial therapy	13/31 (p=0.303)	27/31 (p=0.038)	28/31 (p=0.059)
Inadequate antimicrobial therapy	3/12 (p=0.303)	7/12 (p=0.038)	8/12 (p=0.059)