

DOI: 10.5152/TurkThoracJ.2019.10

[Abstract:0212] MS-014 [Accepted: Oral Presentation] [Respiratory Failure and Intensive Care]

Therapeutic Approaches and Mortality in Acute Respiratory Failure due to Drowning

Selin Çakmakçı, Begüm Ergan, Bilgin Cömert, Ali Necati Gökmen

Department of Pulmonary Diseases, Dokuz Eylül University School of Medicine, İzmir, Turkey

Objectives: Drowning is a process of submersion and can lead to respiratory failure. There is limited data for respiratory failure due to drowning and its prognosis in Turkey. The aim of this study was to identify the therapeutic modalities used for acute respiratory failure due to drowning and its prognosis in hospitalized patients.

Methods: All adult drowning cases (according to ICD diagnosis code) who were admitted to either intensive care unit (ICU) or pulmonology ward between 2008-2018 were included into the study. Data for demographic characteristics, radiologic evaluations, respiratory support and mechanical ventilation, length of hospital stay and hospital mortality were retrospectively collected from hospital records.

Results: A total of 50 patients (22 female, 28 male, median age: 64 years) were included into the study. Of them, 22 (44%) were admitted to ICU due to severe respiratory failure. The most common season event occurred was summer (82%). Admission arterial blood gas analysis showed median levels for pH: 7.31 and PaO₂ 56 mmHg. Invasive and noninvasive mechanical ventilation was performed in 35 and 15% of patients respectively. Of 30 patients (who had accessible FiO₂ values), PaO₂/FiO₂ ratio were >300 in 4 (8%), 201-300 in 10 (20%), 200-101 in 20 (40%), ≤100 in 5 (10%). All patients chest x-rays revealed bilateral opacities and diffuse infiltrations. CPR was performed in 6 (12%) patients and only one had return of spontaneous circulation. Median length of hospital stay was 3 days and hospital mortality was 12%.

Conclusion: There is limited data for prognosis of respiratory failure due to drowning in Turkey. The present study results show that with appropriate therapeutic and support strategies, respiratory failure due to drowning can be treated successfully.

Keywords: Drowning, respiratory failure, intensive care unit