Clinical features and prognostic factors in elderly patients with aspiration pneumonia

Dr. Seo Woo 17546 Kim seowoonha@hanmail.net MD ¹, Prof. Dr Yon Ju 17547 Ryu medyon@ewha.ac.kr MD ¹, Dr. Seok Jung 17548 Lee 79dol@hanmail.net MD ¹, Prof. Dr Jin Hwa 17549 Lee jinhwalee@ewha.ac.kr MD ¹, Prof. Dr Jung Hyun 17550 Chang hs1017@ewha.ac.kr MD ¹ and Prof. Dr Sung Shine 17551 Shim sinisim@ewha.ac.kr MD ². ¹ Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Ewha Womans University, School of Medicine, Mokdong Hospital, Seoul, Republic of Korea, 158-710 and ² Radiology Department, Ewha Womans University, School of Medicine, Mokdong Hospital, Seoul, Republic of Korea, 158-710.

BACKGROUND: The aims of this study were to investigate the clinical features, risk factors, and outcomes of patients with aspiration pneumonia and to identify the prognostic factors contributing to mortality in these patients. METHOD: Following a retrospective review of clinical data and radiographic findings between 2006 and 2010, 176 patients were enrolled in this study. RESULTS: The median age of patients was 75 years (range, 66-81), and 125 (71%) patients were male. 89 (51%) were admitted to the medical ICU and their clinical course was fulminant as a result of acute respiratory failure requiring mechanical ventilation in 79 (45%), septic shock in 36, ARDS in 20, and multi-organ failure in 26. Overall in-hospital mortality was 22.7% (40/176) with a median survival of 18 (range 9-43) days. Comorbidities or risk factors associated with aspiration included cerebrovascular accidents (n =79), bed-ridden status (n =67), DM (n =58), dysphagia (n =57), malignancy (n =29), dementia (n =25), alcoholism (n =18) and Parkinson's disease (n =14). The leading pathogen considered to be associated with pneumonia is MRSA (n =60), followed by A. baumanii (n =24), K. pneumonia (n =19), and P. aeruginosa (n =17). Independent predictive factors of in-hospital mortality included septic shock (HR 7.1, 95% CI, 2.6-19.3, P<0.001), dysphagia (HR 5.3, 95% CI, 1.5-19.1, P=0.010), hypoalbuminemia (serum albumin ≤ 2.5g/dL) (HR 2.7, 95% CI, 1.1-6.9, P=0.038), and CVA (HR 2.6, 95% CI, 1.1-6.5, P=0.036). CONCLUSION: Aspiration pneumonia has a high mortality rate and poor prognosis, particularly in patients with septic shock, dysphagia, hypoalbuminemia, CVA.