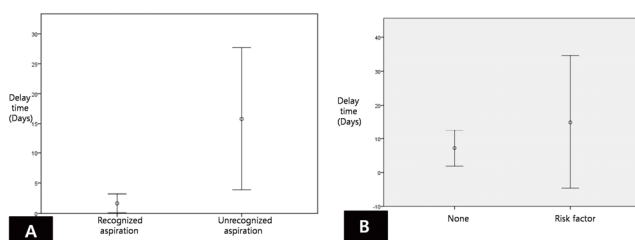


The clinical experiences of airway foreign body removal at a secondary hospital

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Background/Aims: Foreign body (FB) aspiration into the tracheobronchial tree can be life threatening. The FB can be successfully removed with either flexible or rigid bronchoscopy. The aim of this study was to evaluate the clinical experiences of airway FB removal with flexible bronchoscopy at a 700-bed secondary hospital. **Methods:** 23 patients who were conducted airway FB removal with flexible bronchoscopy from January 2005 to December 2018, were enrolled in this study. The clinical features, bronchoscopic findings, and outcomes were analyzed retrospectively. **Results:** The incidence rate of bronchoscopic FB removal was 0.37% among total flexible bronchoscopic cases. There were 17 males and 6 females, with the mean age of 65.6 years old, ranging from 16 to 85. The most common symptom was cough (47%). The other presenting symptoms was sputum (21%), fever (17%), but 30% of patients did not present typical symptoms related to aspiration. Food-related substances were the most common ($n=10$, 43.5%), followed by dental instruments ($n=8$, 34.8.7%). There were 12 cases of foreign body aspiration in the right bronchus and 9 cases in the left bronchus. Of the 9 patients who were aware of the aspiration, 6 patients were aspirated during dental or medical treatment. The most common risk factor for aspiration was neuropsychiatric disease ($n=9$), and facial fracture, acute drug intoxication were 1 in each case (Table 1). There was no difference in risk factors according to whether or not aspiration was recognized. The average of 'delay time' (defined as the time interval between first hospital visit or admission to bronchoscopy) shows gap according to the status of recognition of aspiration (1.67 to 15.79 days) (FigA), and to the presence of aspiration risk factors (7.21 to 15.00 days) (FigB). **Conclusions:** The incidence of airway FB removal with flexible bronchoscopy was very low, but all the procedures were successful. Diagnosis and treatment can be delayed when the patient has aspiration risk factors or unrecognized status about the aspiration.



Variables	N=23
Age(year)	65[16-85]
Sex, %	
Male	73.9[17]
Female	26.1[6]
Symptoms, %	
Cough	47[10]
Sputum	21[5]
Fever	17[4]
Type of foreign body, %	
Food related substances	43.5[10]
Dental Instruments	34.8[8]
Others	21.7[5]
Location, %	
Right bronchus	52.2[12]
Left bronchus	39.1[9]
Trachea	8.7[2]
Risk factors %	
Neuropsychiatric disease	39.1[9]
Facial and mandible fracture	4.3[1]
Acute drug intoxication	4.3[1]