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Scientific Abstract

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Respiratory Tract Infection Frequency in Pediatric Spinal Muscular Atrophy Type 2 Patients based on Cough Ability Measurement

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Abstract

Objective: Obtaining the frequency of respiratory tract infection (RTI) in pediatric Spinal Muscular Atrophy (SMA) type II patients related to cough ability test as one of simple bed side test.

Methods and Material: Ten pediatric SMA type II outpatient, 4-10 years old were assessed by peak cough flow to measure coughing ability. The frequency of RTI in a year that need antibiotic and any hospitalization caused by RTI was obtained by interview.

Results: Among 10 subjects, 7 subject (70%) had peak cough flow below 160 L/min which 71.5% of them got hospitalized due to RTI and the average rate of RTI that need antibiotic was 4.7 ± 0.8 . Three subjects (30%) had peak cough flow above 160 L/min which had the average rate of RTI that need antibiotic 2.3 ± 0.8 and one of them got hospitalization due to RTI.

Conclusion: Patient SMA type II who have peak cough flow below 160L/min are more frequent to have RTI that need antibiotic and hospitalization. Peak cough flow is a simple bed side test that should be routinely done to predict RTI and hospitalization. The patient who had peak cough flow below 160 L/min was recommended to have assisted cough twice a day and postural drainage.