

Respiratory problems and use of impulse oscillometry in children 3 years to 6 years old

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Abstract

Introduction: Measurement of lung function is an important component in the decision making process of obstructive airway diseases. It helps in arriving at a specific diagnosis, choosing pharmacotherapy and assessing prognosis. It can also help in assessing response to therapy.

Objectives: Use of Impulse oscillometry to differentiate between pneumonia and wheezing in 3-6 years old children.

Results: 51 children fulfill the inclusion criteria. 5 children did not perform the procedure optimally. Hence 46 patients were analysed. 23 boys and 23 girls were present. Cold as a symptom was useful in differentiation. P value < 0.05. Cough as a symptom was not useful for differentiation. P value = 0.915. Fever as a symptom affects final diagnosis p value < 0.005. Breathlessness as a symptom cannot differentiate between the wheezing episode and bronchopneumonia p value > 0.05. Heart rate was found to be insignificant. Respiratory rate was found to be significant p value < 0.05.

Conclusion: With proper history and clinical examination and use of impulse oscillometry it is possible to differentiate between wheezing episode and bronchopneumonia. It was found that symptoms fever and cold affects the final diagnosis but age, sex, cough and breathlessness does not affect the final diagnosis. In signs respiratory rate measured by the clinician significantly affects the final diagnosis but heart rate does not affect the final diagnosis.



Biography:

Suhas Kulkarni is working as an Associate Professor in the Department of Pediatrics at D Y Patil Medical College, Kolhapur, India. He is done various publications and detailed projects which are related to the field of Pediatrics.

Speaker Publications:

1. Martinez FD, Wright AL, Taussig LM, Holdberg CJ, Halonen M, Morgan WJ. Asthma and wheezing in the first six years of life. *New England Journal of Medicine* 1995 Jan 19; 332 (3):133-138.
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[28th International Conference on Clinical Pediatrics;](#) London, UK- April 15-16, 2020.

Abstract Citation:

Suhas Kulkarni, Respiratory problems and use of impulse oscillometry in children 3 years to 6 years old, *Clinical Pediatrics* 2020, 28th International Conference on Clinical Pediatrics; London, UK- April 15-16, 2020

(<https://clinicalpediatrics.conferenceseries.com/abstract/2020/respiratory-problems-and-use-of-impulse-oscillometry-in-children-3-years-to-6-years-old>)