

脉冲振荡法测定支气管哮喘患者呼吸阻抗的临床意义 PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/250/2021_2022__E8_84_89_E5_86_B2_E6_8C_AF_E8_c22_250794.htm [摘要]

目的 探讨呼吸阻抗对支气管哮喘的诊断价值。方法 185例健康人和192例支气管哮喘患者进行脉冲振荡肺功能(IOS)测定，并与常规肺通气功能比较。结果 支气管哮喘患者与健康人相比， Z_{rs} 、 R_c 、 R_p 、 F_{res} 、 R 均显著增高， X 明显降低。支气管哮喘患者 Z_{rs} 、 R_p 、 F_{res} 、 R_5 、 $R_5\sim R_{20}$ 与肺通气功能呈显著负相关，与 F_{res} 的相关性最为密切。结论 IOS测定可用于支气管哮喘的诊断， F_{res} 为诊断支气管哮喘气流阻塞最敏感的指标。 [关键词] 支气管哮喘；脉冲振荡法；呼吸阻抗；肺功能测定

Respiratory impedance assessed with impulse oscillometry in patients with asthma FANG Manqi, CHEN Yuying, LIU Ao, et al. Respiratory Department, Kunming General Hospital of Chengdu Military Command, Kunming 650032, China [Abstract] Objective To assess respiratory impedance in patients with asthma. Methods The respiratory impedance was measured by impulse oscillometry (IOS) and compared with parameters of conventional pulmonary ventilation function on 185 healthy adults and 192 patients with asthma. Results There was a significant increase in respiratory impedance (Z_{rs}), central resistance (R_c), peripheral resistance (R_p), resonant frequency (F_{res}), respiratory resistance (R) ranging from 5 ~ 35 Hz in the asthma group compared to those within the healthy group. Reactance (X) ranging from 5 ~ 35 Hz in the asthma group was markedly lower than that in the healthy

group. Zrs, Rp, Fres, R5 and R5~R20 were negatively correlated with parameters of pulmonary ventilation. The closest correlation was found between Fres with forced expiratory volume in one second (FEV1). Conclusion We suggest respiratory impedance is suitable for the diagnosis of asthma. Fres is the most sensitive index in the parameters of IOS to confirm the presence of airflow obstructive in patients with asthma. [Key words] asthma ; impulse oscillometry ; respiratory impedance ; respiratory function tests

支气管哮喘是由多种细胞和细胞组分参与的气道慢性炎症性疾病[1]。这种慢性炎症导致气道高反应性的增加，通常出现广泛多变的可逆性气流受限，并引起反复发作性的喘息、气急、胸闷或咳嗽等症状，反映在肺功能上的改变就是阻塞性通气功能障碍。因此，肺功能检查在支气管哮喘病人的诊断、分级和治疗评价具有重要地位。近年研究表明，呼吸阻抗是判断气流阻塞的敏感指标[2]。我们应用脉冲振荡法(impulse oscillometry, IOS)测定了192例支气管哮喘患者急性发作期的呼吸阻抗，并与常规肺功能进行比较，探讨其临床意义。

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