

Smoking is associated with constant cough which is resistant to oseltamivir therapy for suspected COVID-19

Satoru Chiba¹

¹Department of Internal Medicine Sapporo Suzuki Hospital Medical Corporation Kenseikai Hokkaido Japan

April 16, 2024

Abstract

Background: Smoking depresses pulmonary immune function and is a risk factor contracting more serious outcomes among people who become infected. The association between smoking and persistent respiratory symptoms which are resistant to oseltamivir for suspected coronavirus disease 2019 (COVID-19) was evaluated. **Methods:** A total of 22 COVID-19 suspected medical personnel and their cohabitation families without hypoxia and lung diseases, who came to the adult fever clinic from March to September 2020 were studied. All patients received oseltamivir and antibacterial therapy together. And four patients suffering from constant cough were started on inhaled ciclesonide 400 μ g twice a day for a week. **Results:** Most of the infected patients were female [13 (59%)], 2 had diabetes (9%) and 4 hypertension (18%). The median age was 40 years (interquartile range [IQR] 25–47 years). The study patients were divided into 2 groups; individuals who currently smoke in 11 patients (current smokers) and never smoked in 11 (never smokers). Four (36%) of 11 current smokers experienced constant cough even after oseltamivir administration, compared with 0% of never smokers ($\chi^2=4.90$; $p<0.05$). The cough score decreased from 1.5 ± 0.5 at baseline to 0.3 ± 0.5 during the one week after ciclesonide administration ($p<0.001$) and constant cough disappeared in three cases out of four current smokers. **Conclusion:** Because current smokers are at a higher risk to develop constant cough which is resistant to oseltamivir therapy for suspected COVID-19 as compared to never smokers, smoking cessation should be recommended at an early stage. Ciclesonide may improve the constant cough in suspected COVID-19.

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