Viral shedding in asymptomatic versus symptomatic patients with COVID-19

Cyrine Ben Nasrallah

I Zemni[1], C Ben Nasrallah[1], W Dhouib[1], A Maatouk[1], D Ben Hassine[1], M Ben Fredj[1], H Abroug[1], M Kacem[1], I Bouanene[1], A Belguith Sriha[1]
[1]Department of Preventive Medicine and Epidemiology, Fattouma Bourguiba University Hospital, Monastir, Tunisia
Contact: cyrine.bennasrallah@gmail.com

Background:
An outbreak of coronavirus disease 2019 (COVID-19) is becoming a public health emergency. Data are limited on the association between a prolonged viral shedding in patients

with COVID-19 and having symptoms. We aimed to study the association between the presence of symptoms and recovery time of COVID-19 confirmed patients.

Methods:

We conducted a prospective cohort study of COVID-19 patients admitted to the designated national COVID-19 center in Monastir, Tunisia from March to July 2020. Kaplan-Meier survival curve and Cox proportional hazards regression models were used to assess viral shedding in asymptomatic versus symptomatic patients with COVID-19.

Results:

Among the 264 patients included in the study, symptoms such as anosmia, dry cough, and fatigue were reported by 34.4% (n = 75) of cases. The median time to RNA viral conversion was 24 days (IQR 18-36 days) for symptomatic patients versus 20 days (IQR 16-30 days) for asymptomatic patients. Having symptoms was significantly associated with a prolonged viral shedding (HR 0.600, 95% CI 0.401-0.897) (p = 0.013).

Conclusions:

Our findings revealed that having symptoms delayed viral clearance among COVID-19 patients. Therefore, symptomatology should be taken into consideration in isolation strategy for infected patients.

Key messages:

- Having symptoms was associated with a delay in SARS-CoV-2 RNA clearance.
- The presence of symptoms should be taken into consideration for patient's isolation strategy.