DOI: 10.1002/jmv.25818

JOURNAL OF MEDICAL VIROLOGY WILEY

Response to: Sore throat in COVID-19: comment on "Clinical characteristics of hospitalized patients with SARS-CoV-2 infection: A single arm meta-analysis"

To the Editor,

We thank Andrea Lovato et al for their letter, which was written in response to our recent meta-analysis published in the journal.[1] From the news, we learned that the heroic Italian people are fighting the Corona Virus Disease 2019 (COVID-19) tenaciously. We wish you a great victory in this battle.

In our paper, we concluded by meta-analysis that the incidence of fever was 0.891 (95% confidence interval [CI]: 0.818, 0.945), the incidence of cough was 0.722 (95% CI: 0.657, 0.782), and the incidence of muscle soreness or fatigue was 0.425 (95% CI: 0.213, 0.652). The incidence of acute respiratory distress syndrome (ARDS) was 0.148 (95% CI: 0.046, 0.296), the incidence of abnormal chest computer tomography (CT) was 0.966 (95% CI: 0.921, 0.993), the percentage of severe cases in all infected cases was 0.181 (95% CI: 0.127, 0.243), and the case fatality rate of patients with SARS-CoV-2 infection was 0.043 (95% CI: 0.027, 0.061). By reading the relevant literature, we learned that diarrhea, hemoptysis, headache, sore throat, shock, and other symptoms are rare.

In our study, we included 10 relevant literatures and extracted data of common clinical symptoms from these studies for meta-analysis. From the study of the Chinese Center for Disease Control and Prevention(China CDC),[2] we only extracted the relevant data of the patient in critical condition and case fatality. As you said, there are no data of other specific clinical symptoms in the study of the China CDC that can be used for meta-analysis. In the study of Yang et al,[3] we also only extracted the relevant data of the patient in critical condition and case fatality. We have listed the specific clinical features extracted from each of the included literature in detail in Table 1.

TABLE 1 The characteristics of the literature

First author	Year	Country	Follow-up (days)	No. Patients	Sex	Average age	Research type	Literature quality	Clinical symptom
Chaolin Huang	2020	China	18	41	Male: 30 Female: 11	49	Retrospective study	7	Fever ARDS Muscle soreness or fatigue Cough Abnormal chest CT Patient in critical condition Death of patient
Dawei Wang	2020	China	34	138	Male: 75 Female: 63	56	Retrospective study	7	Fever ARDS Muscle soreness or fatigue Cough Abnormal chest CT Patient in critical condition Death of patient
Nanshan Chen	2020	China	25	99	Male: 67 Female: 32	55.5	Retrospective study	6	Fever ARDS Muscle soreness or fatigue Cough Abnormal chest CT Death of patient

TABLE 1 (Continued)

First author	Year	Country	Follow-up (days)	No. Patients	Sex	Average age	Research type	Literature quality	Clinical symptom
Weijie Guan	2020	China	28	1099	Male: 640 Female: 459	47	Retrospective study	8	Fever ARDS Muscle soreness or fatigue Cough Abnormal chest CT Patient in critical condition Death of patient
Lei Chen	2020	China	15	29	Male: 21 Female: 8	56	Retrospective study	6	Fever Muscle soreness or fatigue Cough Patient in Critical condition Death of patient
Kaiyuan Sun	2020	America	42	288	Male: 182 Female: 106	44	Retrospective study	5	Death of patient
Yang Yang	2020	China	51	4021	Male: 2211 Female: 1810	49	Retrospective study	5	Patient in critical condition Death of patient
Jie Li	2020	China	21	17	Male: 9 Female: 8	45	Retrospective study	6	Fever Muscle soreness or fatigue Cough Abnormal chest CT
China CDC	2020	China	43	44672	Male: 22 981 Female: 21 691	--	Retrospective study	6	Patient in Critical condition Death of patient
Xiaowei Xu	2020	China	16	62	Male: 36 Female: 26	41	Retrospective study	6	Fever Muscle soreness or fatigue Cough Abnormal chest CT Patient in Critical condition Death of patient

Abbreviations: China CDC, Chinese Center for Disease Control and Prevention; CT, computer tomography.

We believe that the symptoms of sore throat are not specific to COVID-19. Because some patients also have symptoms of a sore throat after a violent cough. The study by Huang et al[4] also did not consider sore throat as a specific symptom of COVID-19. According to a recent study by Rodriguez-Morales et al,[5] the incidence of sore throat in COVID-19 patients was 11%. Compared with cough, fever, and muscle soreness or fatigue, sore throat is really rare in COVID-19 patients.

In the treatment of COVID-19 in China, few patients were treated for symptoms of sore throat. Most COVID-19 patients were asked by doctors for real-time reverse transcriptase polymerase chain reaction (RT-PCR) assays due to cough and fever. Chinese physicians found that the combination of RT-PCR and chest CT could improve the diagnostic accuracy of COVID-19.

Of course, we agree with you that no clinical symptom should be ignored. Although the incidence of sore throat in COVID-19 patients is not high, it should be paid more attention to by medical workers. COVID-19 is the common enemy of all mankind. According to the study of Rodriguez-Morales et al,[5] the case fatality rate of COVID-19 patients worldwide has reached 13.9%. Early diagnosis and treatment can effectively reduce the case fatality rate of COVID-19 patients before the development of specific drugs and vaccines to treat COVID-19.

Clinical practice has proved that the methods of prevention of COVID-19 that you mentioned in your article are scientific and effective.[6] We also hope that you will share with us your experience and lessons learned in the treatment of COVID-19. We believe that with the concerted efforts of all mankind, we will surely overcome this plague.

CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

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