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## Our Experience in COVID-19

by **Antonio Orlacchio<sup>1</sup>**, **Silvia Roma<sup>1,4</sup>**, **Marilena Minieri<sup>2</sup>**, **Jacopo Maria Legramante<sup>3</sup>**, **Sandro Grelli<sup>2</sup>**, **Sergio Bernardini<sup>2</sup>**

<sup>1</sup>Department of Surgical Sciences, Department of Emergency Radiology,

<sup>2</sup>Department of Experimental Medicine, Department of Laboratory Medicine

<sup>3</sup>Department of Medical Systems, Department of Emergency, Tor Vergata University Hospital, University of Rome "Tor Vergata",

<sup>4</sup>Department of Diagnostic and Interventional Radiology, Policlinico Casilino; Rome, Italy

Dear Editor,

We read with great interest the recent publication entitled "Chest CT Features of COVID-19 in Rome, Italy"(1). Caruso et al. (1), in their study of 158 patients, found 62 patients (39%) positive to real-time reverse transcription polymerase chain reaction (RT-PCR) and 102 (64%) patients with positive CT findings for viral pneumonia. Also, the study of Ai et al (2) on 1014 cases showed a RT-PCR positive rate of 59% (601/1014) against a positive chest CT imaging in 88% of cases (888/1014).

From March 6 to April 9 we have performed 754 CTs in patients admitted at the Emergency Department of our Hospital, with fever and respiratory symptoms suspicious for COVID-19, of these 452 patients showed positive CT findings for interstitial viral pneumonia compared to 320 patients positive for RT-PCR.

According to the guidelines, the definite diagnosis of COVID-19 is based on the viral isolation or positive result of RT-PCR on upper or lower respiratory tract specimens (3). However, there are some numbers of false negatives for RT-PCR of COVID-19 at initial presentation, with a RT-PCR sensitivity rate reported to be between 30% and 60% (4).

The studies cited (1,2) show a higher sensitivity of chest CT imaging for COVID-19, presenting, as in our case, a greater number of patients with positive CT characteristics for viral pneumonia compared to the positive patients to RT-PCR.

In conclusion, the CT, despite the low specificity, since it does not allow an etiological diagnosis, could have been adopted in this period as a clinical diagnosis criterion, as already done in the revised 5th edition of the Guideline of Diagnosis and Treatment in Hubei Province, China (5), in order to allow an early diagnosis and to stem the spread of the virus in symptomatic patients.

Pending a reference test with higher sensitivity for the diagnosis of SAR-Cov2 infection, in the case of chest

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1. Caruso D, Zerunian M, Polici M, et al. Chest CT Features of COVID-19 in Rome, Italy. Radiology. 2020 Apr 3;201237. doi: [10.1148/radiol.2020201237](https://doi.org/10.1148/radiol.2020201237).
2. Ai T, Yang Z, Hou H, et al. Correlation of Chest CT and RT-PCR Testing in Coronavirus Disease 2019 (COVID-19) in China: A Report of 1014 Cases. Radiology 2020;200642. doi: [10.1148/radiol.2020200642](https://doi.org/10.1148/radiol.2020200642)
3. Interim Guidance: Healthcare Professionals 2019-nCoV | CDC. 2020
4. Yang Y, Yang M, Shen C, et al. Evaluating the accuracy of different respiratory specimens in the laboratory diagnosis and monitoring the viral shedding of 2019-nCoV infections. 2020. DOI: <http://doi.org/10.1101/2020.02.11.20021493>.
5. General Office of National Health Committee. Notice on the issuance of a program for the diagnosis and treatment of novel coronavirus (2019-nCoV) infected pneumonia (trial revised fifth edition) (2020-02-8)



**Antonio Orlacchio, MD**

Department of Surgical Sciences, Department of Emergency Radiology; Tor Vergata University Hospital, University of Rome "Tor Vergata", Viale Oxford, 81, 00133 Rome,

Italy

Email: [aorlacchio@uniroma2.it](mailto:aorlacchio@uniroma2.it)

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