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**Comparison of different samples for 2019 novel coronavirus detection by nucleic acid amplification tests.**

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**Abstract**

An ongoing outbreak of severe respiratory pneumonia associated with the 2019 novel coronavirus has recently emerged in China. Here we report the epidemiological, clinical, laboratory and radiological characteristics of 19 suspect cases. We compared the positive ratio of 2019-nCoV nucleic acid amplification test results from different samples including oropharyngeal swab, blood, urine and stool with 3 different fluorescent RT-PCR kits. Nine out of the 19 patients had 2019-nCoV infection detected using oropharyngeal swab samples, and the virus nucleic acid was also detected in eight of these nine patients using stool samples. None of positive results was identified in the blood and urine samples. These three different kits got the same result for each sample and the positive ratio of nucleic acid detection for 2019-nCoV was only 47.4% in the suspect patients. Therefore, it is possible that infected patients have been missed by using nucleic acid detection only. It might be better to make a diagnosis combining the computed tomography scans and nucleic acid detection.

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**Evaluation of SARS-CoV-2 RNA shedding in clinical specimens and clinical characteristics of 10 patients with COVID-19 in Macau.**

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**Abstract**

As a city famous for tourism, the public healthcare system of Macau SAR has been under great pressure during the outbreak of the Coronavirus Disease 2019 (COVID-19). In this study, we report clinical and microbiological features of ten COVID-19 patients enrolled in the Centro Hospitalar Conde de São Januário (CHCSJ) between January 21 to February 16, 2020. Clinical samples from all patients including nasopharyngeal swab (NPS)/sputum, urine, and feces were collected for serial virus RNA testing by standard qRT-PCR assay. In total, seven were imported cases and three were local cases. The median duration from Macau arrival to admission in imported cases was 3 days. Four patients required oxygen therapy but none of them needed machinal ventilation. No fatal cases were noted. The most common symptoms were fever (80%) and diarrhea (80%). In the "Severe" group, there was significantly more elderly patients (p=0.045), higher lactate dehydrogenase levels (p=0.002), and elevated C-Reactive protein levels compared to the "Mild to Moderate" group (p<0.001). There were positive SARS-CoV-2 RNA signals in all patients' NPS and stool specimens but negative in all urine specimens. Based on our data on SARS-CoV-2 RNA shedding in stool and the possibility of a lag in viral detection in NPS specimens, the assessment of both fecal and respiratory specimen is recommended to enhance diagnostic sensitivity, and also to aid discharge decision before the role of viral RNA shedding in stool is clarified.