



Case Report

Asian Pacific Journal of Tropical Medicine

journal homepage: www.apjtm.org



doi: 10.4103/1995–7645.289442

Impact Factor: 1.94

First COVID–19 related death in Pakistan in a patient with a travel history in Saudi Arabia

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ABSTRACT

Rationale: Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) has been recognized as highly pathogenic. The current pandemic of SARS-CoV-2 has been spread globally and infected more than 200 countries.

Patient concerns: We report the first confirmed fatal case of COVID-19 in Pakistan. A 50-year-old man returned from Saudi Arabia on March 09, 2020 and presented with cough, fever, malaise, poor appetite and difficulty in breathing to the Pulmonologist at District Headquarter Hospital Mardan.

Diagnosis: The patient was initially diagnosed as COVID-19 suspected case. A oropharyngeal swab sample was positive by real-time RT-PCR tests.

Lessons: This report highlights the importance of close coordination between clinicians and public health authorities as well as the importance of early laboratory-based confirmation of COVID-19 cases.

KEYWORDS: COVID-19; SARS-CoV-2; Pakistan

1. Introduction

On December 08, 2019, China reported several cases of pneumonia with unknown etiology in people[1]. On January 7, 2020, Chinese health authorities confirmed that these cases were associated with a novel coronavirus, SARS-CoV-2[2]. As of March 31, 2020, a total of 800 023 cases with 38 748 deaths have been reported in at least 200 countries[3], including the 1 865 confirmed cases of SARS-CoV-2 and 25 deaths in Pakistan. First death has officially been reported on March 18, 2020. Investigations are under way worldwide to better understand the transmission dynamics, the spectrum of clinical illness and deaths. This report describes the epidemiologic and

clinical features of the first fatal case of SARS-CoV-2 infection in Pakistan. Informed consent was obtained from the guardian/close relative for publication of this case report.

2. Case history

On March 08, 2020, a patient departed from Kingdom of Saudi Arabia (Jeddah International Airport) through direct flight of Pakistan International Airline and arrived on March 9, 2020 at Peshawar International Airport, Pakistan. The patient was found normal during the thermal screening at the Peshawar Airport. During his flight, he was accompanied by his two friends (males, 60 and 25 years old). Both friends belong to Union Council Mangah, Mardan District. All friends went to Saudi Arabia for Umrah. After arriving home Mangah, Mardan District on March 9, 2020, family of the patient arranged a grand gathering for lunch on March 9, 2020. Dinner party approximately attended by all villagers including close relatives. Patient lives with his family and many of his relative residing in his neighborhood and he was frequently visiting his relative and friends. On March 16, 2020, the patient visited District Headquarter Hospital Mardan for his medical checkup as he was suffering from cough, fever, malaise, poor appetite and difficulty in breathing.

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How to cite this article: Ullah R, Rana MS, Qadi M, Usman M. First COVID-19 related death in Pakistan in a patient with a travel history in Saudi Arabia. Asian Pac J Trop Med 2020; 13(8): 375-377.

Article history: Received 23 March 2020
Accepted 2 June 2020

Revision 25 May 2020
Available online 16 July 2020

Physical examination revealed body temperature of 38 °C, blood pressure 140/90 mm Hg, heart rate of 80 beats per minute, respiratory rate of 28 breaths per minute and oxygen saturation of 90% while the patient was breathing ambient air. Chest radiography (CXR) revealed mild increased infiltration over bilateral lower lung field. Complete blood count revealed increased leukocytes (11 400 cells/ μ L, normal range 4 000-10 000 cells/ μ L), neutrophils (8 200 cells/ μ L, normal range 1 800-6 300 cells/ μ L) and monocytes 960 cells/ μ L, normal range 100-600 cells/ μ L) while the lymphocytes count (1 530 cells/ μ L normal range 1 100-3 200 cells/ μ L). Consultant at the District Headquarter Hospital notified the case as a suspected patient of COVID-19 and collected nasopharyngeal swab for laboratory investigations and sent the sample to National Institute of Health (NIH) Islamabad. According to the physician, the patient refused to get quarantined in Hospital and preferred staying at home. On March 18, 2020, NIH Islamabad reported the positive results for COVID-19 while the patient was detected negative for Influenza A, B and respiratory syncytial virus. On the same day a team consisting of Public Health Coordinator Mardan and District Surveillance Officer-Polio Eradication Initiative Mardan went to track the contacts and shifted the patient to the Isolation Centre of Mardan Medical Complex. The patient was initially treated by the supportive treatment; however, his condition got worse and died on the same day of admission. This was the first COVID-19 related death in Pakistan and was announced officially on March 18, 2020. As the consultant pulmonologist has been the healthcare provider who got in contact with the patient and she was experiencing symptoms of cough and sore throat, a sample has been taken from the consultant and dispatched to NIH Islamabad as per rules but the sample was detected negative for COVID-19. The patient remained asymptomatic during his journey from Saudi Arabia to Pakistan. Health authorities of Khyber-Pakhtunkhwa (KPK) province locked down the area and after few days hundreds of residents were detected positive for COVID-19 confirming the local transmission of the virus.

3. Discussion

This is the first report describing the COVID-19 related death in Pakistan. This report should be considered seriously in terms of taking full precautions in dealing with patient remains infected with SARS-CoV-2, as they might be a source of infection for the community and frontline health care workers. The dead body should be treated according the standard operating procedure provided by the World Health Organization. A postmortem caretaker wearing personal protective equipment must cover the body in accordance with corpse handling guidelines. No washing, wiping, or undressing of the body should be done. Additionally, the external surfaces of the

body bag must be sanitized and placed into a second bag for double sealing[4].

The clinical presentations of this case are consistent with the cases of COVID-19 reported from China and Taiwan[5]. Fever, malaise, and poor appetite remain the most common symptoms. Some patient didn't have cough, and upper respiratory tract infection (URTI) symptoms such as sore throat and rhinorrhea were rare. Similar clinical complications have been reported in SARS, since URI symptoms were uncommon, and cough was not always present in severe acute respiratory syndrome (SARS) patients. Certain patterns of clinical abnormalities were observed in COVID-19 cases such as leukopenia, lymphopenia, anemia, elevation of liver enzymes and lactate dehydrogenase, have been reported in different case series[6,7] and similar observation has been documented during the SARS outbreak[8].

The clinical utility of CXR in the early diagnosis of COVID-19 is questionable. In this report, initial CXR of patient was normal. Similar findings were reported in the first case of COVID-19 in the United States, and pulmonary patch/consolidation was not detected by CXR until day 5 in hospital[9]. Similarly, in a case series of SARS patients from the Amoy Gardens housing estate, 29.3% (22/75) cases had normal CXR on admission; however four of 22 cases developed acute respiratory distress syndrome (ARDS) afterward. In general, 80% (60/75) of cases experienced radiological worsening at a mean of 7.4 days[8]. Bilateral lung infiltration has been observed in our report. Of 99 COVID-19 cases in China, 25% presented with unilateral pneumonia and 75% presented with bilateral pneumonia[7].

COVID-19 cannot be reliably distinguished by clinical, radiologic, or laboratory criteria from other causes of pneumonia. Moreover, in the clinical setting of community transmission, exposure or travel history alone would be not useful to identify the high risk population of COVID-19 cases. Hence, laboratory-based diagnosis is critical. At present real-time, RT-PCR assay was most widely used to detect SARS-CoV-2 worldwide.

It is anticipated that there will be an overwhelming demand for the supply chain of testing kits/reagents and laboratory equipment, insufficient financial resources and the availability of well trained staff during the outbreak become a serious challenge for the developed as well as the developing world.

In conclusion, full precautions should be taken when dealing with suspected patients of SARS-CoV-2. Health care workers and all the staff members must be aware of and abide by the infection control measures and procedures. More strict regulations and legislation should be introduced and applied, especially to those who are dealing with deceased patients with unknown causes of death. Additionally, new health care workers must be trained and qualified to address all infectious diseases, especially to the newly emerged diseases, such as the COVID-19. Awareness of front-line medical physicians and local public is most important for the control and

prevention of COVID-19 infection in the countries like Pakistan having poor health infrastructure. The health authorities must develop the guideline for the identification of asymptomatic cases which are the source of infection for the other people.

Acknowledgements

We would like to acknowledge the support we received from the medical experts working at Quaid-i-Azam University Islamabad Pakistan, National University of Science and Information Technology Islamabad Pakistan and Mardan Medical Complex Mardan.

Authors' contributions

RU and MSR conceived and designed the study. RU, MSR and MU analyzed data. RU, MQ and MU wrote the manuscript. All authors read and approved the final version of the manuscript.

References

- [1] Pneumonia of Unknown Cause-China, 2020. [Online]. Available from: <https://www.who.int/csr/don/05-january-2020-pneumonia-of-unknown-cause-china/en/> [Accessed on 30th March 2020].
- [2] Novel coronavirus–China, 2020. [Online]. Available from: <https://www.who.int/csr/don/12-january-2020-novel-coronavirus-china/en/> [Accessed on 30th March 2020].
- [3] COVID-19 Coronavirus pandemic, 2020. [online]. Available from: <https://www.worldometers.info/coronavirus/> [Accessed on 30th March 2020].
- [4] Kim JY, Song JY, Yoon YK, Choi SH, Song YG, Kim SR, et al. Middle East respiratory syndrome infection control and prevention guideline for healthcare facilities. *Infect & Chemother* 2015; **47**(4): 278-302.
- [5] Huang WH, Teng LC, Yeh TK, Chen YJ, Lo WJ, Wu MJ, et al. 2019 novel coronavirus disease (COVID-19) in Taiwan: Reports of two cases from Wuhan, China. *J Microbiol, Immunol & Infect* 2020; **53**(3): 481-484
- [6] Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet* 2020; **395**(10223): 497-506.
- [7] Chen N, Zhou M, Dong X, Qu J, Gong F, Han Y, et al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: A descriptive study. *The Lancet* 2020; **395**(10223): 507-513.
- [8] Peiris JS, Chu CM, Cheng VC, Chan KS, Hung IF, Poon LL, et al. Clinical progression and viral load in a community outbreak of coronavirus-associated SARS pneumonia: A prospective study. *The Lancet* 2003; **361**(9371): 1767-72.
- [9] Holshue ML, DeBolt C, Lindquist S, Lofy KH, Wiesman J, Bruce H, et al. First case of 2019 novel coronavirus in the United States. *N Engl J Med* 2020; **382**(10): 929-936.