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Case Report

The novel coronavirus in Palestine and risk for health care worker /case report

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Background

Since December 2019, in Wuhan, China, a new type of coronavirus called novel coronavirus (COVID-19) was identified. The COVID-19 has then rapidly spread to all over China and the world. It can cause many symptoms including fever, difficulty in breathing and cough [1].

Although corona virus infections are mild in general but the epidemics of the previous beta coronavirus were sever [2].

Health care workers who encounter any patient with respiratory illness should wear a mask and gloves, with goggles as. Even when COVID-19 is not suspected, it may be present so routine use of these precautions and increased environmental and personal hygiene is advised [3].

The effectiveness of the personal protective equipment (PPE) for the health care workers is not totally known [4].

Objective

To describe the outcome of health care workers who took care of a patient with a typical pneumonia before the diagnosis of COVID-19 was known.

Case report

55 years diabetes mellitus patient was hospitalized in March 2020 as a case of a typical pneumonia . He had not traveled recently to China nor had contact with COVID 19 cases.

His BP 96/71, HR 92, O2 SAT 94,Tempreture 38 C , the chest examination reveals crepitation.

The COVID19 PCR was negative on admission . the patient is not improving while treated as A typical pneumonia , Two days later one of his relatives was admitted as a case of COVID 19 ,then PCR was repeated for our patient and it was positive on Polymerase Chain Reaction (PCR) assay ,another swab obtained on subsequent day and tested positive.

On the basis of contact tracing, 30 health care workers in the hospital identified as having exposure for at least 10-15 minutes at a distance of less than 2 meters from the patient before they know that PCR is positive.

All 30 health care workers were placed under home isolation for 2 weeks , with daily monitoring for fever, cough and dyspnea.

The isolation of 30 health care worker negatively affect the flow of work on the hospital ,quality of care and increase the work load on their colleagues.

They all tested for COVID 19 by using a PCR assay. and all PCR tests were negative at the first day of isolation, another tests were done post 14 days and fortunately all results were negative .

Discussion

The primary route for the spread of COVID-19 is thought to be through aerosolized droplets that are expelled during coughing, sneezing, or breathing, but there also are concerns about possible airborne transmission4 , so controlling a hazard at its source is the best way to protect employees [5].

Healthcare workers involved in the direct care of patients should use the following PPE: gowns, gloves, medical mask and eye protection (goggles or face shield), Respirators (e.g., N95, FFP2 or equivalent standard) have been used for an extended time during public health emergencies involving acute respiratory. N95 masks are superior to surgical masks for preventing respiratory infection in health care workers [4].

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In addition to using the appropriate PPE, frequent hand hygiene and respiratory hygiene should always be performed. PPE should be discarded in an appropriate waste container after use, and hand hygiene should be performed before putting on and after taking off PPE [6].

As healthcare workers rely on personal protective equipment to protect themselves and their patients from being infected and infecting others , shortages are leaving doctors, nurses and other frontline workers dangerously ill-equipped to care for COVID-19 patients.

Health care workers often accept increased risk of infection, as part of their chosen profession, but they often exhibit concern about family transmission, especially involving family members who are elderly, immunocompromised, or have chronic medical conditions, it is evident that more is required to optimize safety in the current environment [3].

Despite the number of deaths associated with Covid-19 appears to have a lower case fatality rate than either SARS-CoV or Middle East respiratory syndrome–related coronavirus (MERS-CoV) [7,8]. It still serious and the protection provided will be dramatically reduced if workers remove the PPE for even short periods of time.

The current global stockpile of PPE is insufficient, particularly for medical masks and respirators , panic buying and stockpiling will result in further shortages of PPE globally [6].

We recognize the limitations of this single case report and acknowledge that additional studies are necessary to protect health care workers.

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