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Case Report

One geriatric patient exitus and following Case report of the family diagnosed with Covid-19

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Abstract

The diagnosis of Covid-19 first appeared in those with contact near the wild animal market in China (Wuhan).The Chinese government reported on December 31, 2019 that there was a pneumonia picture with an unknown cause. In researches, it has been identified as a Sars-like single chain, positive polarity, zoonotic RNA virus that can have fatal results that are transmitted very quickly from person to person. Because of its crown-like structures on the outside, it is called corona = virus with crown. It belongs to the Orthocoronavirus family and has types α,β, δ, γ. While α,β,types can infect mammals, δ,and γ types can infect birds. It is stated that there is 79% similar sequence between SARS-CoV and SARS-CoV-2 and 59% with MERS-CoV. These types can also be found in bats, pigs, rodents, cats and dogs, other than human. Viruses can stay in the air for up to 3 hours in the air by droplet.

Key words: covid-19, ards, infection

Introduction

The diagnosis of Covid-19 first appeared in those with contact near the wild animal market in China (Wuhan).The Chinese government reported on December 31, 2019 that there was a pneumonia picture with an unknown cause [1]. In researches, it has been identified as a Sars-like single chain, positive polarity, zoonotic RNA virus that can have fatal results that are transmitted very quickly from person to person [2]. Because of its crown-like structures on the outside, it is called corona = virus with crown. It belongs to the Orthocoronavirus family and has types α, β, δ, γ. While α,β,types can infect mammals, δ,and γ types can infect birds [3]. It is stated that there is 79% similar sequence between SARS-CoV and SARS-CoV-2 and 59% with MERS-CoV [4]. These types can also be found in bats, pigs, rodents, cats and dogs, other than human. Viruses can stay in the air for up to 3 hours in the air by droplet.

It can be passed by inhaling, touching and touching the mucous membranes of the aerosols that the patients scatter during coughing and sneezing [5]. The virus is taken up by inhalation and is attached to the ACE-2 receptor in the lung by spike proteins [4, 6]. The clinical pictures created by Covid-19 can range from a simple cold to severe pneumonia followed in intensive care. It can hold not only the respiratory system, but also enteric, hepatic, neurological and nephrological systems [7]. It forms ARDS (Acute respiratory distress syndrome) and microemboli findings in the lung.Diagnosis is made with the appearance of frosted glass, consolidation, opacity in RT-PCR (real-time polymerase chain reaction) and CT (Computed tomography) after clinical complaints or in a history of contact with the nasopharyngeal swab [8, 9, 10, 11, 12, 13, 14, 15].

While the young immune system is sufficiently good, it can be asymptomatic, while it may be more severe in the elderly and those with chronic disease (HT, DM,). It can hold not only the respiratory system, but also enteric, hepatic, neurological and nephrological systems [7]

Fatality rate was determined as 3.8 in China by WHO [16]. The disease caused by Covid-19 virus is accepted as a pandemic by WHO at the beginning of 2020. It spreads rapidly on all continents except Antarctica [2].

In our country, the first case definition was defined as 86-year-old male in Istanbul. Later, cases started to emerge in other provinces. The number of covid-19 diagnoses has increased rapidly due to the large number of foreign contacts who have returned from Umrah visit in our city. It spreads much faster than other influenza pandemics, and intensive care is mostly added in people over 65 years of age.

In the clinic of the cases, cough, subfebrile fever, headache, anosmia, inability to taste, myalgia or arrhythmia, myocardial insufficiency, low oxygen saturation, ARDS in intensive care units, microembolization can be seen.we wanted to discuss the covid-19 infection that developed after contact with a hopeful patient.

Cases

A 71-year-old male patient was admitted to the hospital with a complaint of mild fever, weakness, cough, wheezing, shortness of breath, vomiting,diare.In his history;bening prostat hyperplasia, Diabetes Mellitus, hypertension, allergic rhinitis. He using micardis plus

80/12.5mg, avamys 27,5mg (flutikazon furoat), inflocort aqua(budesonid), humalongmix 25(insülin lispro), ultrax10mg(rosuvastatin) In the examinations, covid-19 (+), ground glass and consolidation areas were observed in ct. Glukose;300mg/dl. CRP: 119.94mg / l, D-dimer: 2484.18ng / ml, Ferritin: 173.48ng / ml, LDH: 286u / 1, Procalsitonin: 10.1ng / ml detected. The patient was started with Creval (butamirate citrate) 15mg / 5ml 3 * 1 with triple treatment of Clexane 4000ü sc, paracetamol, Plaquinil 200mg (hydroxychloroquine sulfate) -Azithromycin500mg-famvir. 21day stay in intersive care unit and exitus.

A 43-year-old female patient living in the same house applied to the hospital with weakness, cough, wheezing. Bilateral thin ral, decrease in breathing sounds, blood pressure arterial 100 / 70mmHg, in her history; hypertension, diabetes mellitus and tashicardia. She using tenoretik50/12.5mg(chlorthalidon), glucobay50mg(acarbose). Fever 36.9°C, covid-19 (+) in examination, glucose;100mg/dl, D-dimer in examinations: 989ng found in / ml, Plaquinil(hydroxichlorocine sülfat) and asitromisine was started.

Her son; 25-year-old male patient was a university student and applied with dizziness, nausea, head pain and diare. In his history operation on his nose and ankle. In her physical examination, both hemitorax are equal to the breathing, fever is 37.6°C, there is no ral-roncus, there is no evidence of meninx irritation. In ct right lung subsegmental 2mm nodüle in left lung linguler segmental athelectasie. In treatment plaquinil, asitromisine, tamiflu, paracetamole are given. After 6 day discharged from hospital.

A 27-year-old female patient applied to the complaints of fever, head pain, shortness of breath myalgia, breast pain and cough. In the medical history of the patient who did not have any other features, anemia was present. She using ferrosanol duodonale (ferrous glycine sulfate). In his physical examination, fever was 38°C. There were ral and roncus. The ct was found in the right lower lobe posterior lineer opacity, left lung lower lobe lateral basale lineer opacity. D-dimer; 279ng / ml, crp 0.70mg / l, glucose 108mg / dl and fibrinogen 352mg/dl hemoglonine 11.1g/dl. covid-19 PCR (+) In treatment chlorhexidine garage, paracetamol, plaquinil, tamiflu 75mg(oseltamivir) were given. After 10 day discharge from hospital.

Discussion

At the end of March, the total number of cases in China, where 3318 people died, is 81.589. The countries with the highest number of approved cases are America (244 thousand), Italy (115 thousand) and Spain (112 thousand), respectively. In Italy, where the largest number of people died, 13 915 people died15 According to the WHO statement on March 3, 2020, the global fatality rate is 3.4(2,17).

In our country, this rate did not exceed 2.3. Among the reasons of fatality rate not being too high in our country, routine BCG vaccination program is thought to be effective in addition to rapid isolation rules, empirical treatment initiation. The highest mortality rate was seen in Italy and USA without BCG vaccine in its routine program [18]. Symptomatic infection is rare in children; Although severe cases are rarely reported, disease severity is usually mild. Men have a higher mortality rate than women.

In the case series we presented, while the family's young and child age group with complete BCG vaccination improved without even needing hospitalization, the oxygen saturation of male and oldest family members decreased and the need for intensive care was required [17, 19].

Fatality rate was 2.3% in all cases, 8% in 70-79 age group and 14.8% over 80 years of age. In the same period, the rate of fatality in Italy was 7.2%, and its highness compared to other countries was associated with approximately 23% of the population of Italy at age 65 and above. The rate of fatality is currently 12.1% in Italy. According to the data in China, the rate of fatality was 10.5% in patients with cardiovascular disease, 7.3% in the presence of diabetes, 6.3% in the presence of chronic respiratory failure, 6.0% in the presence of hypertension and 5.6% in the presence of cancer(20).

In a case group of 355 patients who died due to COVID-19 in Italy, the underlying chronic disease was emphasized in all of the cases except for 3. The fact that the population pyramid of our country has a young population ratio is thought to be among the factors that decrease the rate of fatality [21].

Covid-19 virus infection, which has an incubation period of approximately 2-14 days, can spread rapidly in family members with frequent contact. Those with a history of international contact should be tested quickly. In cases of false negativity of PCR tests, it can be quickly diagnosed and diagnosed without waiting for the PCR test result with ct. Determination of seasonal respiratory virus or bacteriological factor in samples taken in the patient according to the possible case definition does not rule out the presence of SARS-CoV-2 [7].

The fact that the number of ct in our country is sufficient in all pandemic hospitals helps in establishing covid diagnosis. Thus, rapid isolation and initiation of treatment enables the stages to progress rapidly.

As of 25 April 2020, 830257 covid tests were performed in our country. It is stated that the total number of cases is 104912. 2600 people died due to covid diagnosis. 1790 people receive intensive care treatment.929 people are intubated.21737 people have recovered.

After the emergence of the first case in our country, the Ministry of Health scientific board was created and new treatment guides were created by updating every week.

According to the treatment guideline held on 14 April 2020;

Possible case definition was determined as individuals who showed at least one of the fever or respiratory distress, the symptoms could not be explained for any other reason, he or one of his relatives had a history of traveling abroad at least 14 days ago, and had a history of contact with covid positive cases in the last 14 days. The exact case is the cases confirmed by molecular covid-19 test. Identified cases must be reported to the Provincial Health Directorate Public Health Contagious Diseases Unit. These patients who are followed by the provincial health directorates are hospitalized in inpatient health institutions, covid tests are requested and recorded in the e-pulse system. U.07.3 ICD diagnostic code should be entered into the hospital information management system. Possible and definitive cases are taken to isolation and treatment in pandemic hospitals. It is obligatory to use gloves, surgical mask, face protector, glasses, hand disinfectant, liquid impervious apron for healthcare personnel who are involved in the treatment of definitive and possible cases. Patients under 50 years of age and who do not have chronic disease more easily (dm, kidney failure, ht, immune suppressive, blood lymphocyte count <800 micro / l, crp> 40mg / l, ferritin500ng / ml, D-dimer> 1000ng / ml) treatment can be started and followed at home by following the disinfection rules. On the other hand, in the framework of home isolation methods, family physicians are questioned for daily phone visits and fever and respiratory symptoms.

Hydroxychloracine sulfate may be preferred in empirical treatment. In cases where influenza cannot be excluded, oseltamivir may be added due to the season.

The number of breaths with severe pneumomonia> 30 per minute, takiphne, SpO2: saturation <90, those with bad prognostic factors (dm, kidney kidney failure, ht, immune suppressive, blood lymphocyte count <800 micro / l, crp> 40mg / l, ferritin500ng / ml, D-dimer> 1000ng / ml) and those with positive radiological findings, hydroxychloracine sulfate and / or azithromycin is added if there is no contraindication to favipiravir. In cases where seasonal influenza cannot be excluded, oseltamivir can be added.

In the literature, the rates of admission to intensive care unit were determined as 6% [22].

Cases to be followed in intensive care

• »With dyspnea and respiratory distress

• »Respiratory rate> 30 / min

• »PaO2 / FiO2 <300

• »Oxygen demand increased in monitoring

• SPO2 <90 and PaO2 <70 despite »5 L / min oxygen therapy

• »Hypotension (systolic blood pressure <90 mmhg and more than 40 mmHg drop from usual SKB and mean arterial pressure <65 mmHg, tachycardia> 100 / min

• Patients with acute organ dysfunction development and immunosuppression such as acute kidney injury, impairment in acute liver function tests, confusion, acute bleeding diathesis

• »Troponin height and arrhythmia

• »Lactate> 2 mmol

• It was determined as the presence of skin disorders such as capillary return disorder and cutis marmaratus (7).

The average hospitalization time of Covid-19 positive patients was determined as 7 days. In those with severe shortness of breath, it can go up to 8 days. It is very important to follow the rules of isolation and disinfection, both at home and in hospital treatment.

Conclusion

In addition to Covid PCR positivity, test negatives should also be considered. It is important for the control of the pandemic to start the treatment and isolation recommended in the guideline of the Ministry of Health as soon as possible for the patients who have radiological findings and comply with the clinic. Also, information should be shared between countries. The intervention equipment of the health personnel should be complete. The bed capacity of the health institutions should be adapted to the number of patients when necessary.

In order not to increase the mortality rates, the intensive care hospitalization rates should be kept as low as possible. If fewer patients are intubated and connected to the intensive care support units, the success rates of coping with the pandemic will increase.

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