Corona Virus Disease (Covid-19) - Pandemic; Prevention Is Better Than Cure

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Abstract- Corona virus disease is an infectious disease caused by a newly discovered corona virus. It is resembles to crown under electron microscope so the name corona came. Corona virus is large family of enveloped RNA viruses; it is mainly attacked on respiratory system, Seen mostly in age group of 30 to 79 years. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. It is transmit through droplets to person and there no vaccine till now so, prevention is better way to fight against corona virus and disease.

Index Terms- corona virus, COVID-19, symptoms, prevention, treatments

I. Introduction

The corona virus and disease basically origin from Wuhan city of China in last December. In late December 2019, Dr. Li Wenliang, a Chinese ophthalmologist who worked as a physician at Wuhan, China, had received outbreak of unexplained pneumonia illness that is resembled with severe acute respiratory syndrome (SARS). Later acknowledged as Covid-19. He tried to give warning about the deadly virus but his warning were later shared publically and he has died due to Corona virus disease in 7 Feb 2020 [1]. Corona virus and disease is an infectious disease caused by a newly discovered corona virus. It is resembles to crown under electron microscope so the name corona came. Corona virus is large family of enveloped RNA viruses; it is mainly attacked on respiratory system, Seen mostly in age group of 30 to 79 years. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019 [2].

II. Symptoms

The covid-19 virus affect different people in different way, the most common symptoms are [3]

- fever,
- common cold,
- dry cough,
- fatigue,
- other symptoms include
- Shortness of breath & difficulty in breathing
- Aches and pains
- Sore throat
- A very people will report nausea & diarrhea

**Warning Signs**-Bluish lips or face, difficult to arouse

**Incubation period**-2 to 14 days

**Mode of transmission**-person to person through respiratory droplet

### III. LABORATORY DIAGNOSIS

In case you feel your symptoms are specific to the coronavirus, your health care provider can get in touch with CDC and local healthcare department for testing instructions. The government set up the specific lab for conducting coronavirus test in each state. There are different types of test can be done for coronavirus [4].

- **Swab test** – In this test they can take the sample from nose or throat.
- **Nasal aspirate** – In this case, a saline solution will be injected into your nose and then a sample is taken with a light suction.
- **Trachial aspirate** - In this case, a bronchoscope is introduce into the lung through mouth and collect the sample from it.
- **Sputum test** – sputum is thick mucus that is secreted by the lung wall and come out with the cough, that sputum is collect by the swab for test.
- **Blood test** – In this case, a blood sample is taken from a vein in the arm.
- **RT-PCR assay** as per WHO guidelines

Decrease in lymphocyte count, hemoglobin, albumin, oxygen saturation increase in neutrophil count ESR, CRP

**Recent data** – Number of covid -19 cases in INDIA as 10 april 2020 [7].

<table>
<thead>
<tr>
<th>India covid 19 till today</th>
<th>Conformed</th>
<th>Active</th>
<th>Recovered</th>
<th>Deceased</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4419</td>
<td>3968</td>
<td>329</td>
<td>122</td>
</tr>
</tbody>
</table>

Number of covid -19 cases worldwide as 10 april 2020 [7].
In India, confirmed coronavirus cases now double in a week. China, South Korea and Japan have already a flat curve. Italy, Spain, and Iran double every 2nd to 3rd day.

Cumulative numbers of confirmed cases in selected countries after the 100th case, last updated with the numbers from March 19 and 20 (as per time zone).

IV. PREVENTION

Social distancing of 1 meter, not to shake hand Quarantine [5].
- Wash your hands regularly with soap and water, or clean them with alcohol based hand wash.
- Avoid touching face
- Cover your mouth and nose with triple layer surgical mask, not to spit in public,
- Avoid consumption of raw or undercooked animal products.
- According to WHO smoker and alcoholics are more prone for covid so please avoid it.

5. Treatment - There currently is not a vaccine against developing Covid 19. Antibiotics are also because covid 19 is a viral infection [6].
If the symptoms are more severe, supportive treatments may be given by doctors in hospital. This type of treatment may be:
- Fluid to reduce the risk of dehydration.
- Medication to reduce a fever.
- Supplemental oxygen in more severe cases. In some very severe cases, patient needs to ventilator also.

Drugs used so far are:
1. Hydroxychloroquine 400mg orally for 7 to 10 days or Chloroquine phosphate 500mg BID for 10 days along with Azithromycin
2. Oseltamivir 150mg for 5 days
3. Lopinavir/Ritonavir
4. Intravenous Ascorbic Acid (IVAA) : 100 mg / kg given over 24 hours in a continuous infusion
5. Ivermectin

Chemoprophylaxis-Hydroxychloroquine 200 mg BID for 7 days
BCG Vaccination as it revokes immunity

Drugs to be avoided-Ibuprofen, Aspirin

V. DISCUSSION

On 11 March 2020, WHO declared “Novel corona disease outbreak as pandemic and reiterated the call for countries to take immediate actions and scale up response to treat, detect and reduce transmission to save people’s lives [1]. Prevention is better than cure in case of corona disease. In India, honorable Shri Narendra modi ji, Prime Minister of India has already lockdown our country for 21 days to prevent the community spread of Covid-19 and 50% successful but the main question is, this Would be working on corona virus? Some researchers have given their opinion that “The number of corona virus patients would be increased after 21 day of lockdown so for complete prevention of corona disease, the lockdown should be increased for 49 days in two way, either complete lockdown for 49 days or there will be 5 days gaps between lockdown eg 21 days – 18 days – 10 days.

VI. CONCLUSION

“Prevention is better than cure”, because it was observed that within 5 month, the degrees of spreading and illness is very high of Corona virus disease 2019 (COVID-19) and presently there is no specific treatment or vaccine available for COVID-19 so self quarantine and social distancing is the best option to prevent from this disease. Use of soap for hand washing can minimizes the chances of infection, containment and prevention is the best option to fight against COVID-19 [9]. STAY IN HOME IS THE BEST MEDICINE.

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