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CLINICAL FEATURES, DIAGNOSIS AND TREATMENT OF COVID-19.

General Medicine

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KEYWORDS

INTRODUCTION:-

A number of viral diseases have emerged over time. Several viral epidemics have occurred in the recent past with Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) in 2002, H1N1 influenza in 2009 and more recently, the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) in 2012.

Recently, on 31st December 2019, an epidemic of cases were reported to the WHO in the Wuhan city of China's Hubei province. This has now been attributed to a novel virus of Coronavirus (CoV) family. It is very contagious and spreads rapidly. The International Committee on Taxonomy of Viruses (ICTV) has termed it SARS-CoV-19 virus. On March 11, 2020 it was declared as a pandemic by the WHO.[1]

Epidemiology:- A large number of countries are affected. China, Iran, Italy, USA, India, Japan, South Korea to name a few.

Clinical Features:- The spectrum of the disease may vary from being asymptomatic, mildly symptomatic or severe forms where the patient may be needed to be admitted to the ICU and may need ventilator support due to the occurrence of ARDS. There may also occur sepsis, septic shock, multi-organ dysfunction syndrome (MODS).

The most common symptoms that the patients affected by COVID-19 have are fever, dry cough, dyspnoea, malaise, pain abdomen, myalgia, diarrhea, sore throat, nasal congestion. Most of the fatal cases were more than 80 years old and also the patients with chronic comorbidities like Diabetes Mellitus, COPD, Cardiovascular diseases, Carcinoma, etc.

Pneumonia is a common presentation. Non-pneumonia or mild pneumonia occurs in about 81% of the cases. Other forms of the disease may be the severe form and the critical disease or ARDS, Septic shock, MODS.[2]

Diagnosis:- Various epidemiological factors are taken into account while deciding on whom to test. Anyone who has had a close contact with a patient of lab confirmed COVID-19 within 14 days of symptom onset or a history of travel from affected geographical area within 14 days of symptom onset, should be tested. Apart from this, all persons with an influenza like illness, healthcare workers, asymptomatic contacts or persons with travel history should also be tested, as per the present ICMR guidelines. Also, all patients with of SARI, asymptomatic contacts of the COVID-19 positive patients should be tested on Day 5 and Day 14 of the disease.

WHO has recommended the following methods of sample collection for the RT-PCR test. For the upper respiratory tract- Nasal or Nasopharyngeal or Oropharyngeal swab can be taken. For the lower respiratory tract- Expectorated sputum, Bronchoalveolar lavage or Endotracheal aspirate can be tested.

Treatment:- At present, there is no specific antiviral available to treat the COVID-19. Also, there is no vaccine available at present. Treatment is mainly symptomatic along with oxygen therapy. There may be a need for mechanical ventilation in the cases of ventilator failure. Haemodynamic support is needed for septic shock. Patients with respiratory support may require-

a) Intubation and protective mechanical ventilation:- Rapid sequence intubation done with the person wearing the N-95 mask and PPE and also with a preoxygenation with 100% oxygen should be done. One should use low tidal volumes of 4-6 ml/ kg BW with a high PEEP. Prone ventilation for about 12 hours per day and conservative fluid strategy should be followed.
b) NIV:- HFNO or NIV with a well fitting interface may be given.
c) Other therapies:- Systemic corticosteroids for viral pneumonia/ ARDS is not recommended. ECMO for patients with a refractory hypoxemiamay be considered. Hydroxychloroquine is recommended for trearment as well as prophylaxis. For treatment, it is givenin a dose of 400 mg BD for 01 day, followed by 200 mg BD for 05 days. For prophylaxisof healthcare workers, it is given in a dose of 400 mg BD for 01 day followed by 400 mg once per week for 07 weeks. For non-healthcare workers, it is given for prophylaxis in a dose of 400 mg BD for 01 day, followed by 400 mg once per week for 03 weeks. In severe cases, add Azithromycin 500 mg OD for 05 days and also Oseltamivir 150 mg BD for 05 days.[3]

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