



## Different Immunomodulator in Covid-19

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### ABSTRACT

**“ Pandemic is not word to use lightly or casually- Dr. Tedros”** The present study of immunomodulator in covid-19 in many ayurvedic and allopathic in ayurvedic most of time Himalaya septilin, they are used to increase immune system and in which use the ayurvedic ingredients like yashtimadhu, guduchi, and Gugglu, they are good in used for immune modulator.

In allopathic medicine most of drug used in covid-19 for immunomodulator for curation of the corona. In this virus are group of viruses and they are action Ace-2-enzyme receptor (Angiotensin converting enzyme receptor)and TMPRSS-2-receptor transmembrane proteins serine precursor used in the many allopathic drugs like ,hydroxychloroquine,nafamostat ,vmefenior,lopanavir etc.

The novel coronavirus disease 2019 (COVID-19) is spreading globally. Although its etiologic agent is discovered as severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), there are many unsolved issues in COVID-19 and other infectious diseases. The causes of different clinical phenotypes and incubation periods among individuals, species specificity, and cytokine storm with lymphopenia as well as the mechanism of damage to organ cells are unknown.

**Keywords:** Ayurvedic,Allopathic,Covid19,Yastimadhu,Guduchi,Gugglu,ACE-2-Enzyme receptor modulator, globally ,Himalaya septilin.

### 1 Introduction

The covid-19 also known as coronavirus and they are belong to SARS-Covi-2 family( Sevrce Active Respiratory Syndrome) and the first time found December 31 2019 that's why they are known as covid-19 and coronavirus family of viruses that scan cause range of illness in human including common cold and more severs from like SARS and MARS ,which are like treating viruses name after its shape which take form crown with protrunicoes around it and hence known as coronavirus.

Coronavirus effects on humans by 2 receptor is ACE-2-enzyme receptor and TMPRSS-2- receptor.

The new coronavirus is seventh known to affect human has been named covid-19 the outbreak of coronavirus can to hide on the outbreak of coronavirus came to light on December 31<sup>st</sup> 2019 in wuhan city of China in covid-19 immunomodulator in use them many drugs or herb ayurvedic medicine Himalaya septilin in which use yashtimadhu (immunomodulator ingredient),guduchi(increase the antibody/immune system), Gugglu (anti inflammatory) Himalaya septilin is used in tablet as well as in syrup form. In immunomodulator of allopathic medicine in which used many drugs like Hydroxychloroquine,Nafomastat,Vemfnovirare medicine the inhibit entery of endocytosis.

Lopnavir,Darunavir,Ritonavir,are medicine which are inhabits protease improtineinhabitors are used as Remedivisir ,Ribavirin,Feviprin,Merimepoib etc.

### 2 Classification:Immunomodulator /Treatment Used In Covid19

#### 1.Entary inhibitors:

- a) Hydroxychloroquine
- b) Nafamostat (chemostat)
- c) Vemfnovir (Arbidol)

**2. Inhibit Endocytosis**

- a) Hydroxychloroquine

**3. Inhibit Protease**

- a) Lopanavir/Darunavir/Ritonavir

**4. RNA polymerase inhibitors**

- a) Remdesivir/Galidesivir
- b) Ribavirin
- c) Favipiravir
- d) Merimepoibq
- e) B-Hydroxycystidine

**5. Improtine inhibitors**

- a) Iveractin

**6. Immunomodulators**

- a) Corticosteroid
- b) Hydroxychloroquine.
- c) Tocilizumab
- d) Sarilumab
- e) Bevacizumab
- f) Plasma exchange

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**3 Mechanism**

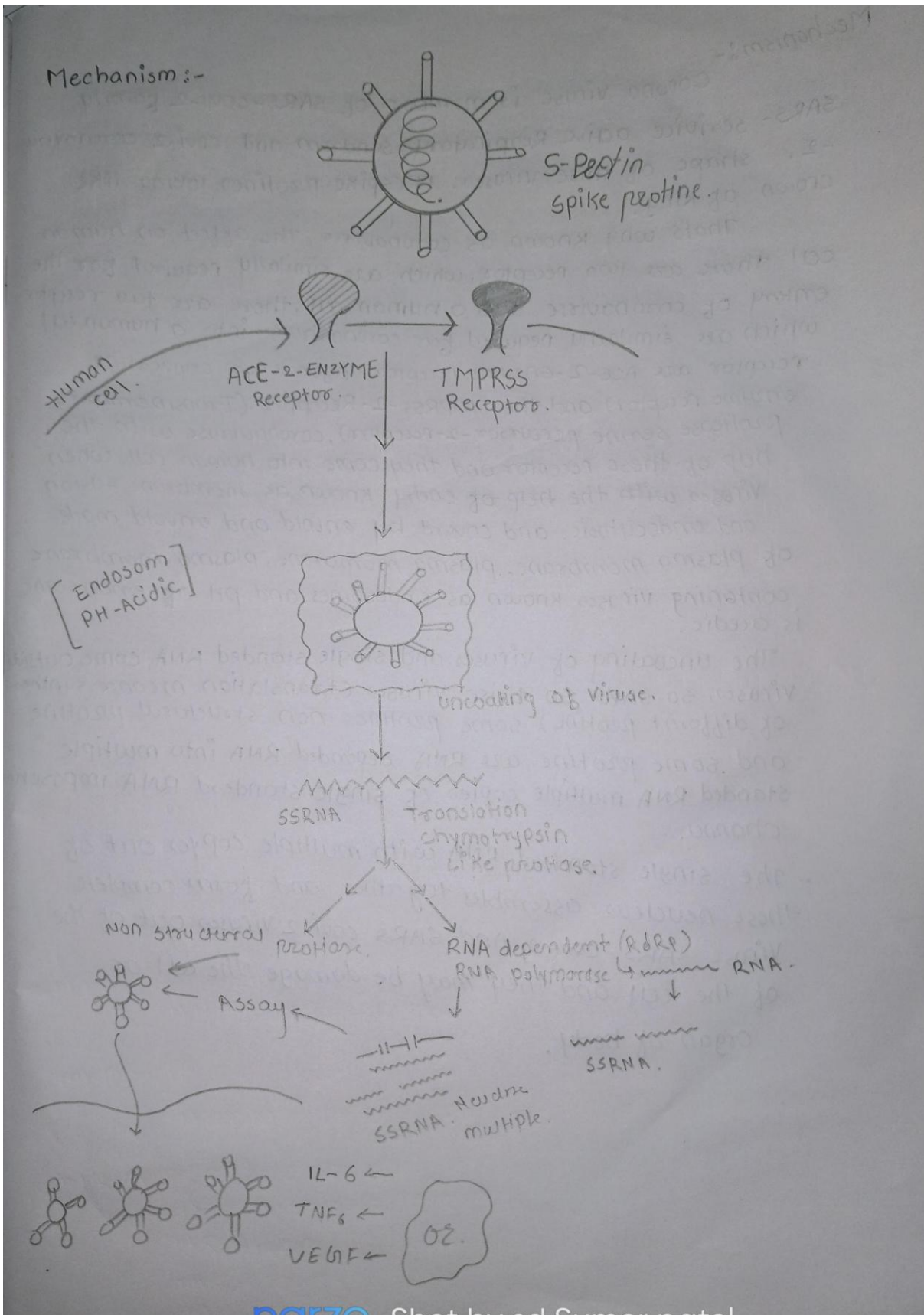
Coronavirus is member of SARS-COVID 2 family (service active respiratory syndrome) and Covi2 coronavirus2. Shape of this virus is (spike protein) looking like crown of king. That's why known as coronavirus.

The effect on human cell, on human cell there are two receptors which are similarly required for the entry of coronavirus into human cell. Receptors are ACE-2- enzyme receptor (Angiotensin converting enzyme receptor) and TMPRSS-2- Receptors (transmembrane protein precursor 2 receptor), coronavirus with the help of these receptors and they come into human cell. When virus comes into human cell then entry is known as membrane fusion and endocytosis and covered by envelope and envelope made of plasma membrane. Plasma membrane converting virus known as endosomes and pH of endosomes is acidic.

The uncoating of virus and single stranded RNA come outside viruses, so SARS Covi or coronavirus are single standard virus so this virus (translation means synthesis of different protein). Some protein non structural saturated protein and some protein are RNA dependent RNA polymerase.

The single stranded RNA with multiple copies out of these nucleus assembly together and form complete viruses SARS-COVID-2 And SARS-COVID-2 Virus out of the cell and they may damage the cell or organ body.

**Mechanism:**



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#### 4 Function:

- 1.RNA dependent RNA polymerase single stranded RNA into multiple stranded RNA.
- 2.Multiple copies of single stranded are in a porlin channel.
- 3.The single stranded RNA with multiple copies out of the nucleus assembled together and form a complete virus SARS covi2.And SARS Covi-2 viruses out of the cell endocytosis and immunity with membrane and they may be damaged the cell or organ.

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#### 5 Conclusion:

In covidimmunomodulator drug are help to fight against coronavirus in the use different allopathic and ayurvedic immunomodulator in allopathic help tosupressthe immunity in hydrogylchloroquin, Ribavirin, and in Aurvedic drug in yastimadhu, Himalaya septilin play an important role so immunomodulatory are important for improve the immunity.

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