

SPIRONOLACTONE against COVID19: from Preventive to Therapeutic Effect

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COVID 19 is an easily spreading virus with high prevalence. This virus is not a strong virus but it encountered the world with a big dilemma.

It doesn't seem such a microorganism could be such destructive. May be if we look as COVID19 virus to the victims of COVID 19, we could find an easily accessible drug against the destructive effects of virus.

COVID 19 is not a strong virus because you can easily remove it from your hands by washing your hands with water and soap and reduce virus adherence to the hand. Then in the body if we can reduce its binding to its receptors, we would be able to subside destructive effects of the virus in the body.

It seems that the Corona virus uses ACE as portal of entry into the lungs through spike glycoproteins included in the structure of virus. In fact this enzyme acts as Covid 19 receptor. Entrance of the coronaviruses into the cell depends on binding of the viral spike (S) proteins to cellular receptors and on S protein priming by host cell proteases. [1] This fact might provide insights into achievement of therapeutic targets.

The key point for subsiding the virus activity is preventing the entrance of CoVid 19 into the cell

I believe that spironolactone, a drug in clinical use for over 50 yrs. is the key element to subside progressive chain of complications of COVID19 and it could be proposed as preventive medicine for complications of SARS Corona virus 2.

Mechanism of action

Spironolactone (SPR) acts by two mechanisms in prohibiting Covid 19:

- ACE inhibiting effect:

ACE receptors have been mapped in literature in kidney, vascular and cardiac muscle, brain [2] and in high concentration in pulmonary capillary endothelium. [3]

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Spironolactone may exert direct cardiac and vascular effects inhibiting cardiac collagen hypertrophy and limiting vascular constriction. [4]

- Moreover, spironolactone has a documented antiviral effect on EBV, CMV and KSHV.[5] and may have the same effect on Covid19.

Dosage

Therapeutic dose is 25 mg twice a day. The dosage can be increased to 100 - 200 mg per day based on the severity of complications. In pediatrics safe dose of spironolactone is 1-3 mg/kg.

Low dose spironolactone (25 mg daily), could have preventive role in SARS-Cov-2, in adults. In children the dosage is 0.5-1mg/kg.

My successful experience in the treatment of 10 patients with documented COVID 19 pulmonary involvement encouraged me to share this experience with the world. In all patients clinical symptoms subsided in 48 hours and recovery occurred in 4 days. Patients were in the range of 2.5 year-old to 70 year-old. (Fig.1 & Fig.2)

All the patients received a combined chemo-herbal regimen including Spironolactone, Ibuprofen or Naproxen, cold stop and chamomile tea.

In my opinion spironolactone with mechanisms mentioned above and NSAIDs through downregulating IL-6 production and suppressing PGE2 production (anti-inflammatory role) [6] play outstanding therapeutic role in early restriction of COVID 19 destructive complications.

Cold stop (Adult cold) and Chamomile can be used as adjuvants. They play pain relief and anxiolytic role and help to prevent cells from releasing prostaglandins and stress related mediators. Chamomile has known anti-inflammatory effect as

CT scan related to:

65 year-old male patient. ICU admitted Patient with the history of diabetes and hypertension for over than 30 years. Endotracheal intubation on March 19 because of COVID 19. Extubating on April 1th.

Figure 1. Computed tomography before treatment with "Javid protocol".

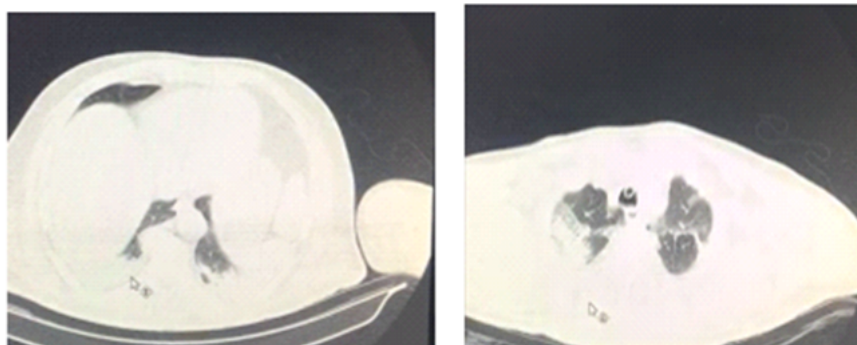
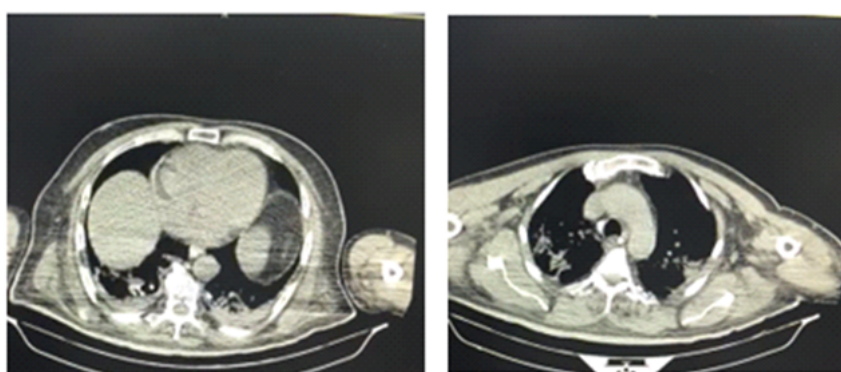


Figure 2. Computed tomography four days after treatment.



well.[7]

A preventive and therapeutic protocol "Javid Protocol" was proposed on March 9. The Protocol has been filed in USPTO on March 24, 2020. Application number: 62994014

I would like to announce that it could be shared with researchers in all around the world if they are interested.

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