



EXCITEMENT AROUND HYDROXYCHLOROQUINE FOR TREATING COVID 19

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ABSTRACT

The novel severe acute respiratory syndrome coronavirus 2 (SARS-COV-2), Also called as COVID-19, has caused a pandemic which has swiftly involved the entire world and raised great public health concerns. And Hydroxychloroquine has been widely administered to patients with covid- 19. The malaria drug hydroxychloroquine helped to speed the recovery of small number of patients who were mildly ill from covid19. Due to this its going to send a ripple of excitement out through the treating community. The drug that has received the most attention is Hydroxychloroquine. and its working against covid- 19 can create more excitement *around everywhere*.

KEYWORDS: COVID19, hydroxychloroquine, chloroquine.

INTRODUCTION

In mid December 2019 in the city of wuhan, in central china, an epidemic of coronavirus was declared.

Chinese health officials officially announced the discovery on 7th january 2020.

On 30th January world health organization (WHO) declared public health emergency of international concern

It is never observed before due to this reason it is named as covid19 ie. Novel coronavirus (new) on February 11, WHO give this name as new coronavirus On 11th march, WHO upgraded the epidemic to a pandemic.

Cough fever and pneumonia went away faster and the disease seemed less likely to turn severe in people who received hydrochloroquine than in a comparison group not given the drug. The authors of the report said that the medication was promising but that more research was needed to clarify how it might work in treating coronavirus disease and to determine the best way to use it. The study was small and limited to patients who were mildly or moderately ill, not severe cases. So lets more information HCQ.

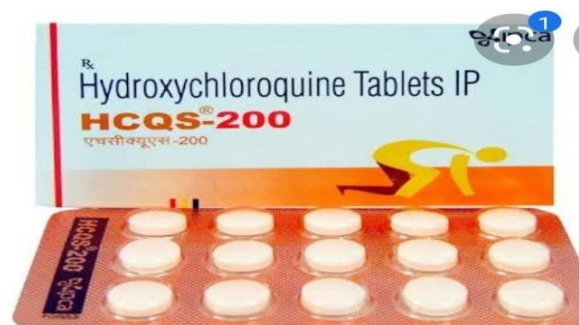
What is Hydroxychloroquine?

HCQ is a quinoline medicine used to treat or prevent malaria, a disease caused by parasites that enter the body through the bite of a mosquito. It is 4 aminoquinoline with immunosuppressive, antiautophagy and antimalarial

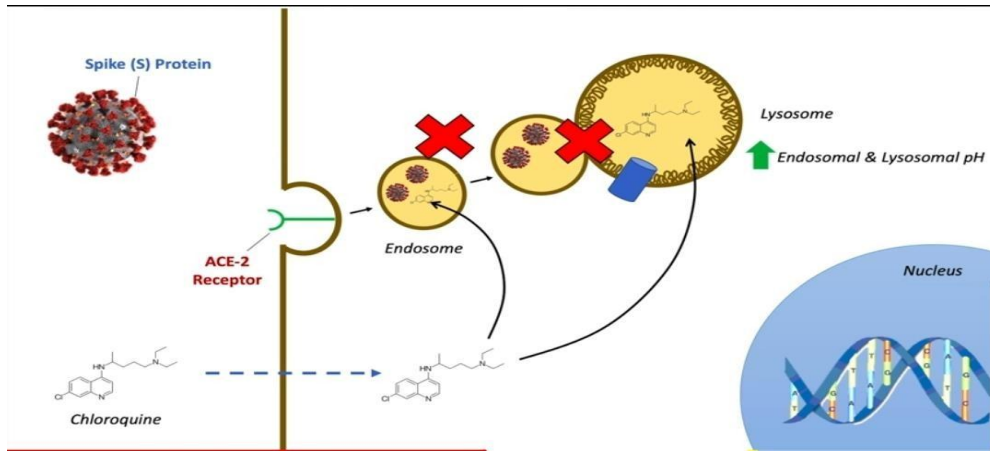
activities. it is taken orally. HCQ is available as brand name drug plaquenil.

It is also being studied as treatment for covid-19. HCQ was approved for medical use in united states in 1955. it may have both an antiprotozoal activity and an anti-inflammatory activities.

Structure of Hydroxychloroquine



Mechanism and overview of antiviral effects of hydroxychloroquine, chloroquine and covid 19 /Mechanism of Action:



HCQ inhibits viral endocytosis

Lets consider, Host cell consist of lysosomes in their structure. And lysosomes are the suicidal bags of cell, ACE RECEPTORS which are present outside of cell it helps in attachment of virus.

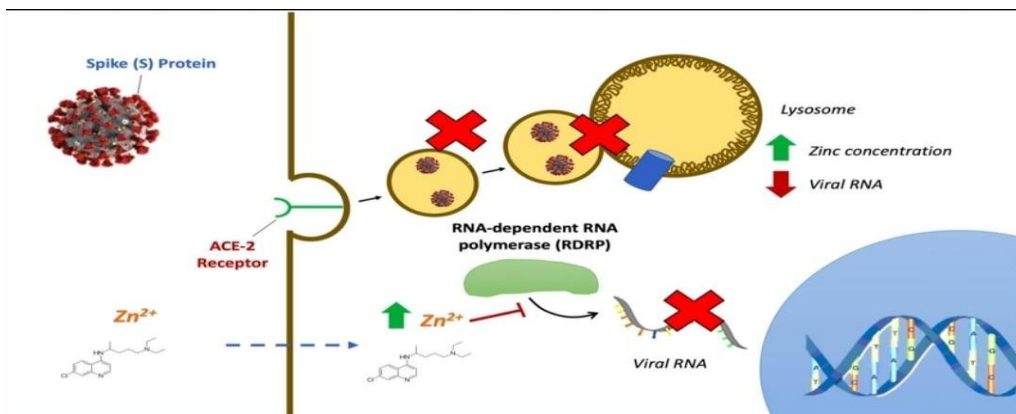
When COVID19 is enter and it contain spines/ spike protein in their structure for the attachment of cell.

CQ and HCQ interferes with glycosylation of this 2 receptors and blocks the virus fusion and infection is consequently stops.

Once HCQ is entering to the cell it is more concentrate in the organel with low PH but this drug increases the PH of lysosome creating problem in cleavage of surface by proteins and without a cleavage function replication of coronavirus and infection are blocked.

Hydroxychloroquine and chloroquine are considered to be IMMUNOMODULATORS preventing T-CELL Activation.

Hcq and Cq Immunomodulator Activation T-Cells
Chloroquine acts as zinc ionophore and hydroxychloroquine interfere with viral binding.



Side effects

1. Headache
2. Dizziness
3. G. I. upset
4. Rashes
5. Ventricular arrhythmia or Q-T prolongation and other cardiac disease

Depending on where you get your news, you might think hydroxychloroquine is Miracle drug, and india is a biggest producer and exporter of hydroxychloroquine drug.

There is no evident proof that any drug can cure or prevent infection with coronavirus but in the face of an exploding pandemic with a frightening death toll, people are desperate for a BIT OF HOPE, a chance to believe there is something important that will help.

President Trump has recommended repeatedly, despite warnings from his own health officials that there is less data to support his widespread use as treatment against the virus, HCQ and Azithromycin taken together, have a real chance to be one of the biggest game changer in the history of medicines.

RESULT

For this study, I identified a total of 08 published articles; videos; and some news. These studies were all suggestive that HCQ can successfully treated COVID 19 infection.

CONCLUSION

those patients who recovered from this disease having more immunity than others, Also the ACE receptors are more present in male so the chances of affectiveness in male is more than female. It may be available as weapons to fight COVID-19, some what how it created great excitement around world.

REFERENCES

1. I referred many news like the LANCET rheumatology articles.
2. Also many videos to understand the effect of HCQ on covid19 ie. JJ Medicine video channel on youtube: on HCQ and chloroquine SARS COVID-19: mechanism and overview of antiviral effects this video helps me to understand mechanism of HCQ.
3. P. colson, J.M. Rolain, J.C. Lagier, P. Brouqui, D. Raoult Article: chloroquine and hydroxychloroquine as available weapons to fight covid19 (Google scholar).
4. Huang M. T. Tang, P. Pang, M.Li, R. Ma, J.Lu, et al: Treating covid19 with chloroquine.