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Short Communication

Short Commentary on Approved Medications for COVID -19 Management?

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According to New York Times research dated on 19 July 2020 in Times of India National News Paper, a medication that needs to be treated for COVID -19 is still persisting with trial and error basis. Prescribers and researcher investigators are finding very difficult for knowing medications which are approved medications for treating COVID-19? Till today around the globe there are no approved medications for treating COVID-19 and all medications that were used to treat this virus were anti malarial class followed by anti viral class, antiretroviral class, and corticosteroids. As per research carried out by New York Times there are sixteen major treatments which had inconclusive evidence in COVID-19 management.

Remdesivir-This medication had proven with promising evidence which can decrease hospitalization among patients suffering from severe illness of COVID-19 (i.e from 15 to 11 days) and it can also decrease mortality rate among patients with fatal COVID-19. It acts by stopping viruses from multiplying by inserting itself into new viral genes.

Favipravir-This is medicine meant to treat flu health problem, and acts by blocking virus ability to copy its genetic material. A research study carried out for short period of time during March reflected that it can expel coronavirus from the airway, but evidence in clinical trials are lacking.

Lopinavir-Ritnavir- This is antiretroviral drug which meant to treat HIV infection, had shown drug effectiveness

by reflecting coronavirus multiplication can be stopped, but clinical trial evidence had shown that it is very unsatisfactory about the positive health outcomes in the management of COVID-19. Therefore WHO suspended this drug combination in the management of COVID-19 during July 2020, but even though it may be used in the management of mild symptoms of COVID-19. The promising evidence of this drug combination in management of COVID-19 is lacking.

Hydroxychloroquine and Chloroquine-In the initial stages of COVID-19 pandemic, research investigators have thought that this antimalarial drug combination can stop coronavirus from multiplying in cells. Patients who subjected to undergo investigation in small human clinical studies gave hope that this drug combination is effective against treating COVID-19. Further clinical evidence among patients who underwent randomized clinical trials had reflected poor prognosis with this antimalarial drug combination who acquired coronavirus. The broader clinical evidence showed that this antimalarial drug combination did not help in subsiding severity of COVID-19. The US and FDA clearly cautions that this drugs can cause adverse impact on cardiovascular system and other human anatomical systems among patients who underwent to treat COVID-19. This antimalarial drug combination don't have adequate scientific evidence in treating COVID-19.

Convalescent Plasma- The old strategy applied by clinicians who among patients with severe flu disease was treated with plasma therapy (i.e collecting plasma of patient who have recovered from flu disease). The same strategy was applied to ongoing COVID-19 treatment, which should be applied only for patients with severe COVID-19 as per the directions of USFDA. There is no clear evidence that this plasma therapy can have better prognosis among COVID-19 fatal patients.

Dexamethasone: According to New York Times research, six thousand study subjects who underwent treatment with dexamethasone during COVID-19 found that this steroid reduced one third mortality among study subjects receiving treatment with ventilators and one fifth mortality among study subjects receiving treatment with oxygen. Clinical evidence clearly reflected that this steroid had effectiveness in COVID-19, but more research is needed in COVID -19 management.

Cytokine Inhibitors: Scientists have discovered several drugs to stop cytokine storms (i.e immune systems of the body react excessively to treat infections) such as Tocilizumab, Sarilumab and Anakinra. Among these drugs, only few drugs have shown promising results and others have failed promising results in COVID-19 management. Therefore further clinical research should be carried out with help of clinical trials with respect to cytokine inhibitors in COVID-19 management.

Summary: Every clinician who prescribes antiviral drug during COVID-19 should be very careful and needs to assess following factors such as hepatic and renal function status, specialized population such as Geriatric, Pediatric etc, co morbidities of patient, allergic history of drug, COVID-19 severity status, clinical evidence in management of COVID-19 and duration of drug therapy in COVID-19.