

THE INTEGRATIVE APPROACH OF MEDICINES IN CORONA CLINICAL MANAGEMENT

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Acknowledge to the Idea Originator:

The idea is to analyse the University Centre of Planning ,Integration & Correlation and Faculty of Pharmaceutical Science, Faculty of Ayurvedic Science & Faculty of Homoeopathic Science , Jayoti Vidyapeeth Women's University, Jaipur jointly made efforts to identify Ayurveda and Homoeopathy Medicines for Corona Clinical Management with modern medicine .Principal Investigator Dr.Panckaj Garg is strongly recommended same source of the Hydroxychloroquine (HCQ) in modern medicine(which is recommended by the Indian Council of Medical Research, Government of India (ICMR) as prophylactic and also used worldwide in Clinical Management of Novel Coronavirus (COVID-19))in Ayurveda and Homoeopathic medicines which is used either individual or integration on the basis of “Dr. Garg thoughts”. **The needs of integration are very important for the** safety measures and management during containment of Corona Virus (COVID – 19) infection. The Principal Investigator Jv'n Dr. Panckaj Garg always strives for betterment of community and through this project he provides community health management for competing and the risk of COVID-19.And same source of Ayurvedic & Homoeopathic medicines Pharmacopoea for prophylactic use.

Proposed Research Ideology:

Base for selection of Medicines: “Dr. Garg thoughts” “Drugs formed by the same source in different therapy pharmacopoeias which can be used as a single or with integrated approach to achieve better results”. According to principal investigator for the proposed project “Dr. Garg thoughts”, the plan will be sent to a task force formed by the AYUSH Ministry for clinical trial & scientific validation of Ayurveda and Homoeopathic, modern medicinal formulas through research institutions in tackling COVID-19. Covid-19 has evolved itself into a pandemic, affecting a large population irrespective of their physical features, dietary patterns, psychological attributes etc.

Abstract

Covid-19 has evolved itself into a pandemic, affecting a large population irrespective of their physical features, dietary patterns, psychological attributes etc., The sequencing of the clinical course is as follows- Mild illness, Pneumonia, Severe pneumonia, Acute Respiratory Distress Syndrome (ARDS), Sepsis, Septic shock. This indicates the signs and symptoms of the disease are of wide range which include mild cough and cold up to severe Acute Respiratory Distress Syndrome (ARDS), Sepsis, Septic shock, etc. So the choice of treatment also changes as per change in the stage of Disease condition. Hydroxy-chloroquine is one of the drugs that found to be effective against coronavirus in laboratory studies and In-vivo studies. In Ayurveda, Kunain (Cinchona officinalis) is one of the drug explained belongs to family Rubiceae. Its chemical constituents are Quinine, Cinchonin, Quinidine, etc .Homoeopathic system & modern system of medicine works on the basis of symptoms of the patient, his individuality. Here we specify the efficacy of homoeopathic medicine & modern medicine Chininum Sulp, & Hydroxychloroquine in reference of corona virus infection. Chininum sulph & Hydroxychloroquine has a particular type of symptomatology such as

anxiety, thick, yellow, white tongue, salivation, bitter taste, general prostration, pulse weak, chilliness on the back, intense heat, fullness of head, face red with sneezing, symptoms return periodically or on alternate days, pneumonia, oedema with liver and spleen affections. In today's epidemic outburst circumstances, there is a need of Ayurveda, Modern Science and Homoeopathy to come together to cure COVID-19. The present study determines the efficacy of Cinchona plant bark's Kwatha (Decoction) and Chininum Sulphuricum (Sulphate of Quinine) along with Hydroxychloroquine (HCQ) as efficient medicinal approach.

Key words- COVID-19, Hydroxychloroquine (HCQ), Modern Science, Ayurveda, Homeopathy, Community Health Management, Integrative research, chemical composition, Care of peoples, pathogenesis; preparedness; emergency; pandemic

Introduction: In today's epidemic outburst circumstances, there is a need of Modern Science, Ayurveda and Homeopathy to come together to cure COVID-19. There are many approaches of these three medical era which can be used together to find out the way for fighting against COVID-19. Hydroxychloroquine (HCQ) is a medicine which has already demonstrated antiviral activity against severe acute respiratory syndrome. Such reports make strong hypothesis of its use against COVID-19. Moreover Modern Science, Ayurveda and Homeopathy suggested same chemical composition of Hydroxychloroquine (HCQ) which strongly recommends the possibility of use of it for treatment of COVID-19 patients (**Bellavite et al 2017**) AYUSH medicines respectively; the Homoeopathic Medicine "Chinimum Sulphuricum" (Sulphate of Quinine) and Ayurvedic Medicine is "Cinchona Bark Kwatha (C.B.)" along with Hydroxychloroquine are medicines are formed from same resource and actions may be same against corona-virus, which can be used for clinical trial. our proposal to Ministry of AYUSH Government of India for a further clinical trial, it may or may not be approved but as per our University Team observations, in present scenario, for the Treatment of Corona Patients, AYUSH medicines should be used with the integrative approach as per guidelines of ICMR in selective COVID-19 Hospitals further, which may be helpful to our country in future medical emergencies. clinical trial of AYUSH medicines with Integrative Approach for Clinical Management of Novel Corona virus (COVID-19) at University Quarantine Centre or you may start the clinical trial at your own level in Government -COVID-19 Hospitals to combat Corona virus. The University initiative behind this project is to exhibit the uniqueness of the research work with proper justification done in which the reviewers were actively involved where Jv'n Dr. Panckaj Garg acted as the chief mentor and all other authors as mentors, under the aegis of "**University Centre of Planning ,Integration & Correlation and Faculty of Pharmaceutical Science, Faculty of Ayurvedic Science & Faculty of Homoeopathic Science** which acts for integration of research and planning being done at "University Thought Process" and to correlate the same with Indian literature. The work done in this project "University health advisory for COVID-19 management" is outcome of "University Thought Process" which is integrated with Medical invention and Medical science & technology.

In spitefulness of incredible advances in modern science with integrative technology, technology and allopathic Hydroxychloroquine medicine a large we are unable to provide quality healthcare management system. Traditional medicine particularly cinchona officinalis plant herbal medicine considered as a major healthcare provider around the symptoms (**Singh et al 2015**). Indian traditional medicinal system like Ayurveda, has a very rich history of their effectiveness; modern research also acknowledged the importance of such medicine. Indian traditional medicine or medicinal plants such as cinchona officinalis are also considered with their chemical constituents as a vital source of drug (**Vinaya et al 2017**). Mainstreaming of such medicine like homeopathic ,Ayurvedic, modern is important for the people. Several steps have been taken in India to promote such medicine and to integrate them into clinical practice. Evidence based incorporation of Indian traditional medicine in clinical practice will help to provide quality healthcare to all (**Vyas et al 2012**). The antimalarial hydroxychloroquine (HCQ) and chloroquine (CQ) have

demonstrated antiviral activity against severe acute respiratory syndrome–coronavirus 2 (SARS–CoV-2) in vitro and in small, poorly controlled or uncontrolled clinical studies (1–3). Normally, such research would be deemed hypothesis-generating at best (**Pandey et al 2017**). The potential for arrhythmia, meanwhile, is well-documented. Chloroquine and hydroxychloroquine block channels on heart muscle cells that control the flow of ions, which governs the heart’s electrical recharging between beats. Cinchona officinalis chemical constituents are same in all integrative science for the proven of Hydroxychloroquine (**Bhalla et al 2017**). This is a serious concern because people free from covid-19.

Research Concept: the University Centre of Planning, Integration & Correlation and Faculty of Pharmaceutical Science, Faculty of Ayurvedic Science & Faculty of Homoeopathic Science for safety measures and management during containment of Corona Virus (COVID – 19) infection to make India “Corona Free” from the Hydroxychloroquine integrative composition with Ayurvedic Science & Homeopathic Science & Modern Science For community health management for competing the risk of COVID-19 .

Objective of the Proposed Research:

- This researcher should be involved in the quarantine and/or clinical management of COVID-19 cases.
- Evaluation of Integrative medicine clinical management in different stages of COVID 19.
- To evaluate the prognosis of integrative medicine clinical management.
- To determine the efficacy of Integrative medicine management in today’s scenario of pandemic.
- Utilization of AYUSH Ministry in Worldwide epidemic problem of COVID-19 Treatment programmes.
- Inclusion of Homeopathic medicine, Ayurvedic Medicine with modern medicine like *Chininum Sulphuricum* ,cinchona officinalis & Hydroxychloroquine accurate potency *indeed have potential to combat Covid-19 and its pathogenicity*“The proposed treatment regimen is designed to add efficacy and potency of Integrative with modern medicine in treating Covid-19 infection in combination with ICMR-approved hydroxychloroquine. (**Hahnemann S 1960**).
- A pilot project to monitor the effect of Integrative treatment with modern treatment in the Antiviral effect.
- Significant increase in hem agglutinating antibody responses and hemolytic antibody responses towards sheep red blood cells with the help of Integrative treatment with modern treatment (**Bannerman et al 2014**).
- A study project objective create by: “Centre of Planning, Integration and Correlation “with Faculty of Homoeopathic Science & Faculty of Pharmaceutical Science, Jayoti Vidyapeeth Women’s University for the quarantine centre patients and government staff, the various homeopathic medicines with modern given to patients with covid-19 symptoms.
- Cinchona officinalis, Chininum Sulphuricum & Hydrochloroquine trial on quarantine patients with Government staff for the care in Quarantine centre at Jayoti Vidyapeeth Women’s university for prophylactic After approval and Covid-19 Positive patients in SMS Medical College Jaipur for the Clinical Trial after Approval.
- Inclusion of integrative treatment (i.e. Integrative treatment indeed have potential to combat Covid-19 and its pathogenicity) “The proposed treatment regimen is designed to add efficacy and potency of integrative medicines in treating Covid-19 infection in combination with ICMR-approved hydroxychloroquine.
- A pilot project to monitor the effect of Integrative treatment with allopathic in the Antiviral effect.

- To evaluate the Integrative medicines as efficient as modern medicines in management of COVID 19 or may be helpful along with modern medicines for minimize the other consequences of modern medicines.

Material & method:

University Centre of Planning, Integration & Correlation and Faculty of Pharmaceutical Science, Faculty of Ayurvedic Science & Faculty of Homoeopathic Science

Method-I: A single blind clinical trial will be conducted on COVID – 19 infected person at Quarantine centres, JVVU Jaipur and SMS Medical College and Hospital, Jaipur. Chininum Sulphuricum is sulphate of Quinine Triturate, Weight accurately about 0.5 g and dissolve in 5 ml of dilute sulphuric acid and 20 ml of water in separator. Add 5 ml of solution of sodium hydroxide, extract by shaking with successive quantities of 20 ml of chloroform, until complete extraction of the alkaloid is effected, washing each quantity of chloroform in succession with the same two quantities of 5ml of water (Shah H *et al* 1999). Transfer the chloroform solution to a tared vessel, remove the solvent by evaporation, add 2ml. of ethyl alcohol, evaporate, and dry to constant weight at 1050. Each g of residue is equivalent to 1.151 g of $(C_{20}H_{24}O_2N_2)_3H_2SO_4$. Corona virus causes lower respiratory tract infection in humans. The most common symptoms are dry cough, shortness of breath, coughing up sputum and presence of thick mucus in the lungs which lead to reduced ventilation and subsequent pneumonia. The symptomatic Homoeopathic treatment with modern medicine for these aetiologies are also been recommended in the present treatment regime.

Chininum Sulphuricum trial on the patients and Government staff for the care in Quarantine centre at Jayoti Vidyapeeth Women`s university after approval.

Covid-19 Positive patients in SMS Medical College Jaipur for the Clinical Trial After approval.

In the given study, patients will be selected from Jayoti Vidyapeeth Women`s University Quarantine Centre along with government staff involves in patient care of quarantine patients. All these individuals divided as into 3 groups on the basis of concentration of drugs administrated as per treatment protocol. After the administration of medicines on the daily basis evaluation of diseased condition will be done to evaluate the daily basis prognosis. The treatment protocol followed upto the getting the complete relief to the patient and then using appropriate statistical test analysis will be done to evaluate the efficacy of Homoeopathic management (Ramayya N et al 1994). The management protocol as per different stages as follows:

Clinical trial will be conducted on COVID – 19 infected person with their Government staff at Quarantine centers, JVVU Jaipur.

1. Group-1: One group will be prescribed Chininum Sulphuricum is sulphate of Quinine Triturate with High Dose
2. Group: 2 Another group will be prescribed Homoeopathic medicine Chininum sulphuricum (Sulphate of Quinine with High dose) and also prescribed allopathic medicine Hydroxy chloroquine with Low dose as compare to Chininum sulphuricum for the COVID – 19 patients of all age group, religions and genders with variable period of duration of illness as per symptom similarity basis. As we know those Homoeopathic systems of medicine treat the person, not the disease.
3. Group: 3 Another group will be prescribed Modern Allopathic medicine Hydroxychloroquine with Very Low dose and also prescribed Homoeopathy medicine Chininum sulphuricum (Sulphate of Quinine) with high dose for the COVID – 19 patients of all age group, religions and genders with variable period of duration of illness as per symptom similarity basis. As we know those Homoeopathic systems of medicine treat the person, not the disease.

(All the individuals are selected from patients in Jayoti Vidyapeeth Women`s University quarantine centre, along with Government staff involve in patient care of quarantine patients)

Reduce tiredness, frequency of breathing troubles and cough attacks. For systemic symptomatic treatment of COVID-19, Homoeopathic drug, Chininum Sulphuricum has been generated for providing relief in lung congestion and to reduce mucus accumulation in the lungs, etc will be evaluate in all groups.

The data obtained on the basis subjective criteria of each patient will be collected and assessed to get the result of the study and evaluate the efficacy of both the drugs in the prognosis of such infections.

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Method-II: A single blind clinical trial will be conducted on COVID – 19 infected person at Quarantine centres, JVVU Jaipur and SMS Medical College and Hospital, Jaipur. Cinchona Bark Kwata is being used to treat COVID -19, its efficacy and benefits hotly discussed in the pandemic climate we find ourselves in. The synthetic modification of the “wonder drug” quinine known as Cinchona Bark Kwata as a ayurvedic preparation and modern medicine of Hydroxychloroquine(Balkrishna *et al*,2020) . Corona virus causes lower respiratory tract infection in humans. The most common symptoms are dry cough, shortness of breath, coughing up sputum and presence of thick mucus in the lungs which lead to reduced ventilation and subsequent pneumonia. The symptomatic Ayurvedic treatment with modern medicine for these aetiologies are also been recommended in the present treatment regime (Agarwal *et al* 1999).

Cinchona Bark Kwata trial on the patients and Government staff for the care in Quarantine centre at Jayoti Vidyapeeth Women`s university after approval.

Covid-19 Positive patients in SMS Medical College Jaipur for the Clinical Trial After approval.

In the given study, patients will be selected from Jayoti Vidyapeeth Women`s University Quarantine Centre along with government staff involves in patient care of quarantine patients. All these individuals divided as into 3 groups on the basis of concentration of drugs administrated as per treatment protocol. After the administration of medicines the weekly evaluation of diseased condition will be done to evaluate the weekly prognosis.

The treatment protocol followed upto the getting the complete relief to the patient and then using appropriate statistical test analysis will be done to evaluate the efficacy of Ayurvedic management. The management protocol as per different stages as follows:

Group1: Cinchona Bark Kwatha (C.B.) with higher dose.

Group 2: High dose of Cinchona Bark Kwatha (C.B.) with lower dose Tab. Hydrochloroquine (HCQ)

Group 3: Higher dose of Cinchona Bark Kwatha (C.B.) with Very Lower dose Tab. Hydrochloroquine (HCQ)

(All the individuals are selected from patients in Jayoti Vidyapeeth Women`s University, Jaipur quarantine centre, along with medical staff involve in patient care of quarantine patients)

Reduce tiredness, frequency of breathing troubles and cough attacks. For systemic symptomatic treatment of COVID-19, herbal drug, Cinchona Bark Kwata has been generated for providing relief in lung congestion and to reduce mucus accumulation in the lungs, etc will be evaluate in all groups.

The data obtained on the basis subjective criteria of each patient will be collected and assessed to get the result of the study and evaluate the efficacy of both the drugs in the prognosis of such infections.

Proposed Statistical Analysis Outcome of patients treated with Integrative resources:

“Integrative combination of drug ” is effective as an immunity booster and disease control management for prevention of viral infection like COVID-19. Ayurvedic phytochemicals & Homeopathic medicines along with allopathic medicine Hydroxychloroquine may inhibit the coronavirus replication and could control its growth and spread(Meghwani *et al* 2018). Anticipated Statistical Analysis Outcome significant will be bronchodilator activity in mild and moderate bronchial asthma. Induce significant rise in the antibody titer and also immunostimulation in cattle suffering from the subclinical mastitis as well as increased IL-2 gene expression and heightened IL-2 production. A control group was formed by random selection of patients from the quarantine centre at Jayoti Vidyapeeth womens university, and matched by age, gender, and severity of the diseases to the 10 cases in our trial. Baseline characteristics of patients between corona virus treatment group and control group showed no significant differences, while clinical outcomes of these three groups will different then so much improved status of the any individual group.

Discussion

Our study explores the feasibility of integrative combination therapy in COVID-19. All enrolled COVID-19 patients in Quarantine centre at Jayoti Vidyapeeth women's university achieved primary and secondary outcomes on the basis of group-I, Group-II, Group-III. One dose of Use of 100% of Homoeopathic / Ayurvedic medicines transfusion was well tolerated, while the clinical symptoms significantly improved with the increase of oxyhemoglobin saturation within 3 d, accompanied by rapid neutralization. Second dose of Use of Low dose of Tab. Hydrochloroquine (HCQ) and High Doses of Homoeopathic / Ayurvedic medicines transfusion was well tolerated, while the clinical symptoms significantly improved. Third dose of Use of very Low dose of Tab. Hydrochloroquine (HCQ) and High Doses of Homoeopathic / Ayurvedic medicines transfusion was well tolerated, while the clinical symptoms significantly improved as per prescribed method dosing used on the quarantine patients. Severe pneumonia caused by human coronavirus was characterized by rapid viral replication, massive inflammatory cell infiltration, and elevated proinflammatory cytokines or even cytokine storm in alveoli of lungs, resulting in acute pulmonary injury and acute respiratory distress syndrome ARDS (N. Chen *et al* 2020).

Conclusion: In today's epidemic outburst circumstances, there is a need of Ayurveda, Modern Science and Homoeopathy to come together to cure COVID-19. The present study determines the efficacy of Cinchona plant bark's Kwatha (Decoction) (Kaur *et al* 2015) and Chininum Sulphuricum (Sulphate of Quinine) along with Hydroxychloroquine (HCQ) as efficient medicinal approach. At the end of 2019 a novel virus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), causing severe acute respiratory syndrome expanded globally from Wuhan, China. In March 2020 the World Health Organization declared the SARS-Cov-2 virus a global pandemic. We performed a narrative review to describe existing literature with regard to Corona Virus Disease 2019 (COVID-19) epidemiology, pathophysiology, diagnosis, management and future perspective.

Summary : Dr. Pankaj Garg at the Jayoti Vidyapeeth Women's University (JVWU) have proposed to carry out a clinical trial of immunity-boosting ayurvedic drug fifatrol to check its efficacy in tackling the deadly coronavirus (COVID-19). However, the proposal is yet to be approved, then official work will be start on this. All above said facts prompted to take up the paper entitled 'Role of the integrative clinical management on corona positive patients'. Therefore study was planned to evaluate the effect of Integrative medicine. During this study 50 patients visiting Quarantine centre as per inclusion criteria. They were equally divided into Trial and Control Group. Trial group patients were while "different ratio of integrative medicine were given to patients of trail group (Gupta *et al* 2016).. Duration of this clinical trial will be 1 months. General precaution related to management will be followed. Fixed diet regimen will be prescribed to all the patients of both groups. Also the instruction about exercise will be given to the patients. After the trail period the efficacy of integrative medicine will be evaluate on the basis of Subjective Criterias. The proposed treatment regimen is designed to add efficacy and potency of Integrative medicines in treating Covid-19 infection in combination with ICMR-approved hydroxychloroquine. Indicating overall aims of the research, importance of the objectives and their application in the context of the priority for the Immunity boost management and immunostimulation system created in infected patient's body. In the wake of the Covid 19 outbreak, entire mankind across the globe is suffering. Enhancing the body's natural defence system (immunity) plays an important role in maintaining optimum health.

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