

Original Research Article

Homeopathic treatment of COVID-19 caused by novel coronavirus SARS CoV2-a real-world experience

Geeta Rani Arora^{1*}, Ashish Indani², Arti Goyal³, Poonam Bhutada⁴

¹Heal with Homeopathy, Kalkaji, New Delhi, India

²Statistician and Medical Writer, Mumbai, Maharashtra, India

³Central Council for Research in Homoeopathy, Ministry of AYUSH, Govt. of India, New Delhi, India

⁴Krishnamugdha Advance Research, Mumbai, Maharashtra, India

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*Correspondence:

Dr. Geeta Rani Arora,

E-mail: healer.g@gmail.com

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ABSTRACT

Background: The unprecedented healthcare challenge of COVID-19 uncovered a new set of challenges for therapy and management of infective conditions. The aim of the study was to establish efficacy and safety of homeopathic medicines, which work on principles of similar symptomatology of the disease and the drug, individualization of therapy and hyper-attenuated prescriptions.

Methods: The present study was a single centre, OPD based, prospective real-world, all-comer study that included 94 patients of COVID-19, diagnosed based on criteria advised by the Ministry of AYUSH.

Results: In all, 94 all-comer, real-world patients of COVID-19 were included in the study, diagnosed on this basis of the MoH guidance criteria. All patients were symptomatic. The overall age of the patients was 40.98 ± 19.98 years. Few patients [n=21 (16.84)] had comorbidities while a majority of patients [n=79 (83.16%)] had no notable comorbidity. All the patients were relieved to be asymptomatic in maximum 6 days. In the reversed calculation of Cohen's D, indicated that the effect of therapy was significantly large. However, pertaining to the data volume, the effect size was not statistically significant.

Conclusions: Individualized homeopathic medicine were effective in treatment of COVID-19. However, *Bryonia alba* and arsenic album were most commonly indicated medicines p overall <0.0001 (Chi square for equal distribution of top 10). Another trend observation established that *Bryonia alba* was most commonly indicated and effective medicine; hence a potential homeopathic medicine for epidemic (genus: Epidemicus).

Keywords: COVID-19, Homoeopathy, Genus epidemicus, Individualised homoeopathy, Pandemic

INTRODUCTION

The unprecedented healthcare challenge of COVID-19 uncovered a new set of challenges for the therapy and management of infectious conditions.¹ Considering its rapid propagation and dense distribution all over the globe, the world health organization (WHO) declared the outbreak to be a pandemic.^{2,3} The novel coronavirus belonged to a known family of single-stranded RNA

viruses through previous outbreaks of the severe acute respiratory syndrome (SARS) and middle east respiratory syndrome (MERS). However, despite all clinical similarities, the novel strain of coronavirus imposed a new challenge of being extremely infective hence rapid to spread, and mortal.⁴⁻⁶ The rapid propagation through droplets as well as droplet nuclei with quickly severed symptoms, required immediate and intensive in-patient care for respiratory restitution for many patients.^{7,8}

Another important challenge was diversity of opinions and inadequate understanding of therapy. It took a long time to reach to right therapy and management protocol for COVID-19 conditions, transitioning through many drugs like hydroxy-chloroquine, remdesivir, cortico-steroids, colchicine, herbal medicines and homeopathic therapies and convalescent plasma.⁹⁻¹⁶ However, most of treatment proposals alleged to be anecdotal and opinion based.¹⁷ Impact of COVID on research that while all research and regulatory process demonstrated a quantum leap and time efficiency it led to excess of misleading and incongruent information, often through adequately researched publications.¹⁸ Many reputed journals even retracted their published research after some while of observation.¹⁹

Towards an attempt to mitigate the infectivity and mortality impact, many steps are taken toward advances in diagnostic, therapeutic and prophylactic aid. However, on the contrary, various incidents of misuse of unprescribed and home-prepared herbal medicines, homeopathic medicines, antibiotics and many other drugs were reported.^{20,21} Later in the course, the therapies reported various safety issues emerged including some as serious ones as mucormycosis and Kawasaki disease.²² Even demonstrated safety and efficacy of various herbal preparations underwent enough criticism.²³ Some reports of mass prescription of homeopathic medicine arsenic album were also reported, with no rationale or analysis of mass prescription efficiency.²⁴⁻²⁶ The treatment cannot be pre-determined and universal, except when a genus epidemicus could be determined. A genus epidemicus can be determined only when homeopathic methods for medicine selection reaches to the same medicines for a significant proportion of the target disease population. The use of such medication without the support of enough evidence leads to social and medical challenges in the control of the condition.²⁷

Homeopathy, which works on principles of similar symptomatology of disease and drug, individualization of therapy and hyper-attenuated prescriptions, requires a special research method.²⁸⁻³⁰ Various publications have tried registry and randomized trial-based evidence of the efficacy of individualized homeopathic medicines or genus epidemicus in different ways, either as a standalone therapy or as an adjuvant.³¹ With an emerging acceptance in population despite anecdotal criticism by perpetually repudiating experts, there is still a pronounced need for organized efforts to establish the safety and effectiveness of homeopathy in COVID-19 patients, scientifically. Hence, this study was planned as a real-world all-comers study for the treatment of COVID-19 patients.

METHODS

The present study was a single centre, OPD based, prospective real-world, all-comer patients study, conducted from April 2020 to August 2020. Study carried out at Heal with homeopathy, K-30 basement, Kalkaji, New Delhi-110019, India.

Objectives

Evaluation of safety, effectiveness of individualized homeopathic medicine in treatment of COVID-19.

Number of participants

Participants included were 94.

Inclusion criteria

The study included 94 patients confirmed with one of the criteria prescribed by the ministry of health (MoH).³²

Suspect case

A. A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath), AND a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset; OR B. A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case in the last 14 days prior to symptom onset; OR C. A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; AND requiring hospitalization) AND in the absence of an alternative diagnosis that fully explains the clinical presentation.

Probable case

A. A suspect case for whom testing for the COVID-19 virus is inconclusive. OR A suspect case for whom testing could not be performed for any reason.

Confirmed case

A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

Exclusion criteria

No subject who was treated for COVID (confirmed, probable or suspect) was excluded from this study.

Study product

Individualised homeopathic medicines will be given to the participants.

Statistical analysis

The statistical analysis of data was performed with SAS 10.1, Minitab 21 and Microsoft excel. For analysis of categories, frequencies and percentages were calculated using 94 as the base. For time median with zero'th (Min) first, third and fourth (Max.) quartiles was reported. Considering the short range, the relevance of Minimum and Maximum values was more pronounced. For other

measurement-based data, the mean and standard deviation were reported. For analysis of the statistical significance of the numerical data, the z-test was used. The significance of categorical data was calculated using McNemar's chi-test, F-test and ANOVA as required.

Ethical approval

It was a real-world study based on data fetched from patient files in real-time. No additional study procedure was added to routine clinical practice. Also, as this study was clinic-based study, no ethics committee approval was sought. However, the study complied with all requirements of GCP guidelines.

Reaching a probable group of medicines and final prescription

Initially, a probable group of medicines will be identified with a strategy using repertorisation of common symptoms of COVID-19 followed by a selection of individualised drugs from that probable list or any other individualised medicine from Materia Medica which will be called extra repertorial prescription for this study. The group of probable medicines for the preparatory phase was drawn using a process of repertorization using RADAR homeopathic software. Radar is a software-based upon 'repertory'-a book which lists medicines with evidence level against symptoms from the collection of its proving in the homeopathic Materia Medica. Repertorization is a process used in homeopathy for the repertory-based tabulation of medicines by their association with the individual symptoms and aggregate weighted prioritization for totality of symptoms.

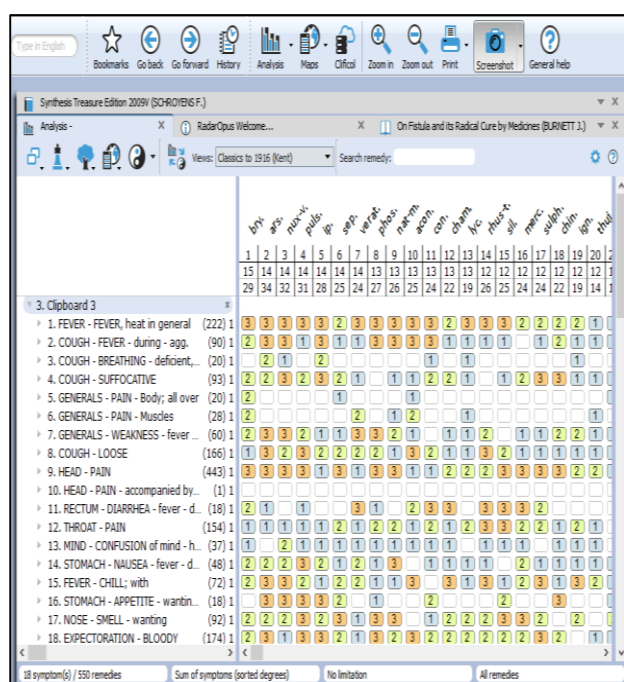


Figure 1: Group of medicines produced by repertorization for COVID-19 symptoms.

The common symptoms of COVID-19 that include fever, myalgia/fatigue, body aches, dry cough, dyspnoea, acute anosmia, acute ageusia, sore throat, chest discomfort, headache, diarrhoea, skin rash and some more rare symptoms such as loss of speech or movement, hemoptysis, pneumonia discolouration of terminal extremities, confusion, anorexia, dizziness, abdominal pain. The group of medicines suggested by repertorization covering more than 13 vital symptoms included *Bryonia alba*, *Arsenic album*, *Nux vomica*, *Pulsatilla nigricans*, *Ipecacuanha*, *Sepia officinalis*, *Veratrum album*, *Phosphorus*, *Natrum muriaticum*, *Aconitum napellus*, *Conium maculatum*, *Chamomilla* and *Lycopodium clavatum* which are ranked by frequency of their indication in the totality (Figure 1).

Further, the selection of individual medicine was based upon applied Materia Medica with added modalities of symptoms and individualizing peculiar concomitant symptoms. The potency selection was based on the acuteness of conditions.

Data collection

A systematic approach was taken toward the prescription principles and data collection for analysis and reporting of the study. The data was collected on a validated Microsoft excel spreadsheet, with controlled editing after the first data entry. To ensure the removal of selection bias, all consecutive patients were recorded in the study. No patient was rejected for the reason beyond the medically indicated requirement of emergency care. The spreadsheet was linked with online storage to ensure each save action is recorded in the automated versioning. The database was locked on the completion of treatment of the first 94 patients, considering that the overall number of infections in the region was trending downhill.

RESULTS

In all, 94 all-comer, real-world patients of COVID-19 were included in the study, and diagnosed on the basis of the MoH guidance criteria.³²

Of the 94, 40 (42.11%) cases were reconfirmed as positive with laboratory diagnosis, 15 (15.79%) cases were general contacts of confirmed positive, 12 (12.63%) were high-risk contacts, 6 (6.32%) were low-risk contacts and 19 (20%) were suspected cases. All patients were symptomatic (Table 1).

Table 1: Categorization of cases as per MoAYUSH clinician guidance criteria.

Case type	N (%)
Contact case	15 (15.79)
High-risk contact	12 (12.63)
Lab confirmed case	40 (42.11)
Low-risk contact	6 (6.32)
Suspected case	19 (20)

Demographics and baseline

The overall age of the patients was 40.98 ± 19.98 years. In all, 43 (45.26%) patients were males and 57 (54.74%) were females. Diabetes was comorbidity in 4 (4.21%) patients, asthma, cancer and obesity in 2 (2.11%), while recurrent tonsillitis, hypertension, hyperlipidemia, ulcerative colitis, myasthenia gravis, osteoarthritis and schizophrenia were present in 1 (1.05%) each. A majority ($n=79$) (83.16%) patients had no notable comorbidity (Table 2).

Table 2: Demographics of all the cases.

Variables	N (%)
Age (Years)	40.98 ± 19.98
Gender	
Male	43 (45.26)
Female	57 (54.74)
Comorbidities	
Asthma	2 (2.11)
Diabetes	4 (4.21)
Recurrent tonsillitis	1 (1.05)
Hypertension	1 (1.05)
Hyperlipidemia	1 (1.05)
Ulcerative colitis	1 (1.05)
Myasthenia gravis	1 (1.05)
Osteoarthritis	1 (1.05)
Cancer	2 (2.11)
Schizophrenia	1 (1.05)
Obesity	2 (2.11)
None	79 (83.16)

At baseline, 68 (71.58%) patients had fever as the presenting symptom with a temperature of $100.75 \pm 1.34^\circ \text{F}$. Other symptoms included cough (22, 23.16%), breathing difficulty (13, 13.68%), weakness (8, 8.42%), aches and pains (46, 48.42%), nasal congestion (23, 24.21%), runny nose/ coryza (17, 17.89%), sore throat (21, 22.11%), loss of smell (11, 11.58%), nausea/vomiting (3, 3.16%) or diarrhoea (3, 3.16%) (Table 3). The concomitant symptoms included headache, tiredness, backache, body ache, chill, eructation, pain in extremities, weakness, eye heaviness, fear and anxiety, flatulence, heaviness, nose obstruction, sneezing, and thirst for cold water.

Outcome of the treatment

All the patients were asymptomatic a maximum of 6 days. The tenure of treatment required for the subsiding of symptoms was monitored and reported in days as a Median with minimum days and maximum days. Fever subsided in median of 1.41 days with a minimum tenure of 1 day and the longest tenure of 6 days. Cough subsided in 1.37 (1,4), breathing difficulty in 0.643 (2,3), weakness in 0.714 (1,2), aches and pains in 1 (1,3), nasal congestion in 1 (1,4), runny nose/coryza in 0.76 (1,3), sore throat in 0.88 (1,4), loss of smell in 0.4 (1,3), nausea/vomiting in 0.12 (1,2) and all other symptoms subsided in 1.43 (2,6) days

(Table 4), $p < 0.001$ (McMemar Chi Sq. at 3 days). No case was reported as a relapse.

Table 3: Primary or presenting symptoms of the cohort.

Variables	N (%)
Symptoms	
Fever	68 (71.58)
Temperature	100.75 ± 1.34
Cough	22 (23.16)
Breathing difficulty	13 (13.68)
Weakness	8 (8.42)
Aches and pains	46 (48.42)
Nasal congestion	23 (24.21)
Runny nose/ coryza	17 (17.89)
Sore throat	21 (22.11)
Loss of smell	11 (11.58)
Nausea/vomiting	3 (3.16)
Diarrhoea	3 (3.16)
Concomitant symptoms associated with the acute episode	
Headache	20 (21.28)
Tiredness	3 (3.19)
backache	2 (2.13)
Body ache	3 (3.19)
Chill	2 (2.13)
Eructation	1 (1.06)
Weakness	5 (5.32)
Pain in extremities	1 (1.06)
Eye- heaviness	1 (1.06)
Fear and anxiety	1 (1.06)
Flatulence	1 (1.06)
Stomach-ache	1 (1.06)
Thirst for cold water	2 (1.06)

Table 4: Tenure of symptoms (days).

Tenure of symptoms (days)	Median (min, max)
Fever	1.41 (1, 6)
Cough	1.37 (1,4)
Breathing difficulty	0.643 (2, 3)
Weakness	0.714 (1, 2)
Aches and pains	1 (1, 3)
Nasal congestion	1 (1, 4)
Runny nose/coryza	0.76 (1, 3)
Sore throat	0.88 (1, 4)
Loss of smell	0.4 (1, 3)
Nausea/vomiting	0.12 (1, 2)
Other symptoms	1.43 (2, 6)

Analysis of medicine prescription

The most commonly included medicine was *Bryonia alba* ($n=42$, 38.12%), which was prescribed as first prescription in most ($n=40$, 36.36%) patients, of which it failed 12 (15.38%) times. It was prescribed in 2 (1.82%) cases as a second prescription when the first indicated drug failed.

The second most commonly prescribed medicine was arsenic album, which was prescribed in total of 24 (21.82%) patients out of which 23 (20.91%) patients as the first prescription. However, it failed to relieve in 13 (33.33%) cases and required to be changed with other indicative drug.

In 1 (0.91%) case, arsenic album was the second prescription. The third most prescribed medicines were *Cinchona officinalis* and *Gelsemium sempervirens*. *Cinchona officinalis* was indicated in 7 (6.37%), followed by *Phosphorus* in 3 (2.73%) and *Pulsatilla Nigricans* in 2 (1.82%) cases. Both, *Cinchona officinalis* and *Gelsemium sempervirens* failed in 6 (85.71%) cases when prescribed. *Gelsemium sempervirens* and *Pulsatilla nigricans* were an extra-repertorial prescriptions and failed, while many extra-repertorial prescriptions indicated as second

prescriptions relieved the symptoms (Table 5), $p < 0.0001$ (Chi-square for equal distribution of top 10).

Analysis of epidemiological effect

In the reversed calculation of Cohen's D, indicated that the effect of therapy was significantly large. However, pertaining to the volume of data, the effect size was not statistically significant (Table 6). The overall of effect size considering any prescription was 1.08, $p = 0.04$ and for the repertorial prescription was 1.4, $p = 0.43$.

This analysis also indicates that, if the medicines which are indicated only once are excluded from the analysis, Bryonia was a closer genus Epidemicus than that of arsenic album and could be used as prophylactic ($p < 0.01$, ANOVA-arsenic vs. Bryonia, prescriptions and failures).

Table 5: Treatment details - frequency of medicines prescribed and failed.

Medicines	1 st prescription		2 nd prescription		Aggregate frequency of prescription		Failure	
	N	%	N	%	N	%	N	%
<i>Arsenic album</i>	23	20.91	1	0.91	24	21.82	13	33.33
<i>Belladonna</i>	1	0.91	0	0	1	0.91	1	100
<i>Bryonia alba</i>	40	36.36	2	1.82	42	38.18	12	15.38
<i>Camphora officinalis</i> *	0	0	1	0.91	1	0.91	0	0
<i>China/ Cinchona officinalis</i>	6	5.46	1	0.91	7	6.37	6	85.71
<i>Chininum arsenicosum</i> *	1	0.91	0	0	1	0.91	1	50
<i>Colchicum autumnale</i> *	0	0	1	0.91	1	0.91	0	0
<i>Colocynthis</i> *	0	0	1	0.91	1	0.91	0	0
<i>Ferrum phosphoricum</i> *	0	0	1	0.91	1	0.91	0	0
<i>Gelsemium sempervirens</i> *	7	6.36	0	0	7	6.36	6	85.71
<i>Hepar sulphuris calcareum</i> *	0	0	1	0.91	1	0.91	0	0.00
<i>Kalium bichromicum</i> *	1	0.91	0	0	1	0.91	1	100
<i>Lobelia purpurascens</i> *	0	0	1	0.91	1	0.91	0	0.00
<i>Mercurius cyanatus</i> *	1	0.91	0	0	1	0.91	1	100
<i>Mercurius iodate ruber</i> *	1	0.91	0	0	1	0.91	1	50
<i>Mercurius solubilis</i> *	1	0.91	0	0	1	0.91	1	50
<i>Nux vomica</i> *	1	0.91	0	0	1	0.91	1	100
<i>Ocimum cannum</i> *	0	0	1	0.91	1	0.91	0	0
<i>Phosphoricum acidum</i> *	0	0	1	0.91	1	0.91	0	0.00
<i>Phosphorus</i>	3	2.73	0	0	3	2.73	2	28.57
<i>Pulsatilla Nigricans</i> *	2	1.82	0	0	2	1.82	2	100
<i>Rhus toxicodendron</i> *	1	0.91	0	0	1	0.91	1	100
<i>Sanguinaria canadensis</i> *	1	0.91	0	0	1	0.91	1	100

** indicates extra-repertorial prescription.

Table 6: Analysis of epidemiological effect.

Prescription	Failure Effect size (Cohen's D)	P value
<i>Arsenic album</i>	1.82	0.42
<i>Belladonna</i>	0.17	0.3
<i>Bryonia alba</i>	1.86	0.46
<i>Camphora officinalis</i>	1.73	0.5
<i>China/ Cinchona officinalis</i>	1.1	0.36
<i>Chininum arsenicosum</i>	0.78	0.39
<i>Colchicum autumnale</i>	1.73	0.5

Continued.

Prescription	Failure Effect size (Cohen's D)	P value
Colocynthis	1.73	0.5
Ferrum phosphoricum	1.73	0.5
Gelsemium sempervirens	1.1	0.36
Hepar sulphuris calcareum	1.73	0.5
Kalium bichromicum	0.17	0.3
Lobelia purpurascens	1.73	0.5
Mercurius cyanatus	0.17	0.3
Mercurius iodatum ruber*	0.78	0.39
Mercurius solubilis*	0.78	0.39
Nux vomica*	0.17	0.3
Ocimum cannum*	1.73	0.5
Phosphoricum acidum*	1.73	0.5
Phosphorus	1.55	0.43
Pulsatilla Nigricans*	0.17	0.36
Rhus toxicodendron *	0.17	0.3
Sanguinaria canadensis*	0.17	0.3

‘*’ indicates extra-repertorial prescription

DISCUSSION

COVID-19 pandemic and homeopathy

In the COVID-19 pandemic related studies, multiple studies demonstrated usefulness of homeopathic treatment. Phansalkar et al demonstrated efficacy of homeopathic medicine as an adjuvant therapy in ICU bound COVID-19 patients though a placebo-controlled randomized study.³¹ Pradeep et al conducted a randomized clinical trial using *Bryonia alba* as an indicated medicine.³³ In all, 14 studies are observed in the India registry of clinical trials of India (CTRI) which include homeopathic medicines for treatment and prevention of COVID-19 pandemic. While *Arsenic album*, *Camphora* and *Bryonia alba* are the main drugs as test products, the constitutional individualized medicines and novel nosodes, the products of viral load, are also considered as test products in two trials.³⁴ Like every epidemic, the homeopathic medicine gained some attention of discussion during the COVID-19 pandemic.

Homeopathy is accepted as a reliable therapy in many geographies with increasing published evidence. Despite the controversial placebo effect discussions about high dilution versus high potency, homeopathic medicines have demonstrated promising outcomes in epidemics.³⁵ Historically, a classical case study of homeopathy in scarlet fever epidemic in 1799 has been a benchmark of epidemic use of homeopathic medicines. In the era of evidence-based medicine, use of homeopathic medicines in dengue fever in Brazil, leptospirosis in Cuba and influenza, dengue, and Japanese encephalitis has been well demonstrated.³⁵⁻⁴² All these instances reconfirmed the concept of using a genus epidemicus, the generic remedy

for the epidemic. While this concept is little different from the concept of individualization in homeopathy, the

genus epidemicus is a well-used and evidenced homeopathy concept in previous epidemics.

Each epidemic is new and unique. After collection of few totalities of symptoms, and after a close observation, the genus epidemicus is identified.⁴³ This medicine is also considered as a prophylaxis for the ongoing epidemic.⁴⁴ At the same time, comes the aspect of safety of homeopathic medicines and their dosage. While the new experiments have provided a roadmap for efficacy evaluation of the homeopathic medicines, Theruvath et al cited report of acute liver injury, after homeopathic remedy AA30 for COVID-19 prevention.⁴⁵ Hence, the homeopathic medicine must be observed for safety concerns to identify its safe dose and repetition. This current study with close to 100 subjects, did not report any adverse drug reactions.

During the COVID-19 pandemic, Arsenic was suggested as a prophylactic in January 2022.⁴⁶ Clinical history of patients of Wuhan, China in Lancet titled, “Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China” was the basis for collection of symptomatology. However, this study inferred that *Bryonia alba* was closer symptomatologically as well as clinically for COVID-19.

Similar observations were made by Gupta et al in the study for COVID-19 treatment with *Bryonia*.³³ While this study was an effort in line with various other studies of the similar type, there is a strong need for evidence through systematic aggregate review and meta analysis. The homeopaths and the homeopathic industry must perform analysis of failure modes and effects and identify the most scientific way of the therapy. One of the trained observations is that *Bryonia* has been indicated in maximum patients, this the Hahnemanian concept of genus Epidemicus also applies where most indicative and effective medicine functions as remedy for the majority of population during epidemic.

Limitations

The study was an observation non-randomized study, based out of a single clinic. As per the arrangements of the law of the land ethics committees are institution bound. Hence, authors could not get ethics committee review for this study.

CONCLUSION

Individualized homeopathic medicine were effective in treatment of COVID-19. However, Bryonia alba came up as most commonly indicated medicine. Also, one of the trained observations inferred that Bryonia was indicated and effective in majority of cases hence could be a potential homeopathic medicine for the COVID-19 epidemic (Genus epidemicus).

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Ethical approval: Not required

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