Clinical Trial Details (PDF Generation Date :- Wed, 07 Jun 2023 18:37:08 GMT)

CTRI Number	CTRI/2021/09/036257 [Registered on: 06/09/2021] - **Trial Registered Prospectively**
Last Modified On	26/05/2023
Post Graduate Thesis	No
Type of Trial	Interventional
Type of Study	Vaccine
Study Design	Randomized, Parallel Group, Placebo Controlled Trial
Public Title of Study	Intranasal COVID-19 vaccine Phase 2 study in Healthy volunteers
Scientific Title of Study	A Phase 2, Randomized, Double Blind, Multicenter Study to Evaluate the Immunogenicity, Reactogenicity and Safety of an Intranasal Adenoviral vector COVID-19 vaccine (BBV154) in Healthy Volunteers.

Secondary IDs if Any

Secondary ID	Identifier
BIL/BBV154-II/2021 Version No: 3.0; Date: 07-08-2021.	Protocol Number

Details of Principal Investigator or overall Trial Coordinator (multi-center study)

Details of Principal Investigator	
Name	Dr Krishna Mohan
Designation	Whole-time Director
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Details Contact Person (Scientific Query)

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Name	Dr Krishna Mohan
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Source of Monetary or Material Support

Source of Monetary or Material Support
> Bharat Biotech International ltd.,Genome Valley,Shameerpet,500078

Primary Sponsor

Primary Sponsor Details	
Name	Bharat Biotech International Ltd
Address	S Block, Medical Affairs Department, Bharat Biotech International Ltd, Genome Valley, Shameerpet 500078
Type of Sponsor	Pharmaceutical industry-Indian

Details of Secondary Sponsor

Name	Address
NIL	NIL

Countries of Recruitment

List of Countries
India

Sites of Study

Name of Principal Investigator	Name of Site	Site Address	Phone/Fax/Email
Dr Sanjay Pandey	AIIMS PATNA	Department of Community and Family Medicine, AIIMS Patna Aurangabad Rd, Phulwari Sharif Patna Bihar 801507 Patna BIHAR	7905113329 drsanjaypanday72@gmail.com
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Dr Ganesh Babarao Bansod	Radiant Superspeciality Hospital Sabnis Plot Amravati	Radiant Super specilaity Hospital,Department of Consultant intensivist, Consultant Physician , Kalyan Nagar, Amravati,Maharashtra 444606 Amravati MAHARASHTRA	9975628583 drganeshb123@gmail.com
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Details of Ethics Committee

Name of Committee	Approval Status	Date of Approval	Is Independent Ethics Committee?
IEC-AIIMS-PECR/1387/Inst/BR/2020 AIIMS PATNA	Approved	13/09/2021	No

Institutional Ethics Committe Pranaam Hospitals Miyapure	Approved	01/09/2021	No
Institutional Ethics Committee,Rana Hospital,Gorakhpur	Approved	01/09/2021	No
Radiant Super speciality HospitalEthics Committee,Amravati,Maharastra	Approved	06/09/2021	No

Regulatory Clearance Status from DCGI

Status	Date
Approved/Obtained	08/08/2021

Health Condition / Problems Studied

Health Type	Condition
Healthy Human Volunteers	Healthy Volunteers

Intervention / Comparator Agent

Type	Name	Details
Intervention	BBV154 INTRANASAL VACCINE	Chimpanzee adenovirus 36 encoding SARS-CoV-2 pre-fusion stabilized spike protein (ChAd36-SARSCoV-2-S) administered 0.5 mL of vaccine (BBV154) on day 0 and day 28 via intranasal route with a dropper.
Comparator Agent	Placebo	Placebo will be administered 0.5mL in two doses, on Day 0 and Day 28 through intranasal route.

Inclusion Criteria

Inclusion Criteria	
Age From	18.00 Year(s)
Age To	60.00 Year(s)
Gender	Both
Details	Inclusion 1. Ability to provide written informed consent 2. Participants of either gender of age between ?18 to ?60 years. 3. Good general health as determined by the discretion of investigator (vital signs (heart rate ?60 to?100 bpm; blood pressure systolic ?90 mm Hg and <140 mm Hg; diastolic ? 60 mm Hg and <90 mm Hg; oral temperature <100.4ºF), medical history, and physical examination). 4. Expressed interest and availability to fulfil the study requirements. 5. For a female participant of child-bearing potential, planning to avoid becoming pregnant (use of an effective method of contraception or abstinence) from the time of study enrolment until at least four weeks after the last vaccination 6. Male subjects of reproductive potential: Use of condoms to ensure effective contraception with the female partner from first vaccination until 3 months after last vaccination. 7. Male subjects agree to refrain from sperm donation from the time of first vaccination until 3 months after last vaccination 8. Participants must refrain from blood or plasma donation from the time of first vaccination until 3 months after last vaccination 9. Agrees not to participate in another clinical trial at any time during the study period. 10. Agrees to remain in the study area for the entire duration of the study. 11. Willing to allow storage and future use of biological samples for future research

Exclusion Criteria

Exclusion Criteria

Details	Exclusion 1. History of any other COVID-19 investigational/or licensed vaccination. 2. Unacceptable laboratory abnormality at screening (prior to first vaccination) or safety testing, as listed below 3. Confirmed SARS-CoV-2 at the time of screening using RT-PCR and ELISA method. 4. Any history of facial nerve paralysis 5. History of cold, sneezing, nasal obstruction in the past 3 days. 6. Prescribed usage of any nasal spray/or nasal drop medication. 7. Any significant abnormality altering the anatomy of the nose in a substantial way or nasopharynx that may interfere with the aims of the study and in particular any of the nasal assessments or viral challenge (historical nasal polyps can be included, but large nasal polyps causing current and significant symptoms and/or requiring regular treatments in the last month are excluded) 8. For women of child bearing potential, a positive serum pregnancy test (during screening within 45 days of enrolment) or positive urine pregnancy test (within 24 hours of administering each dose of vaccine). 9. Temperature >38.0°C (100.4°F) or symptoms of an acute self-limited illness such as an upper respiratory infection or gastroenteritis within three days prior to each dose of vaccine. 10. Medical problems as a result of alcohol or illicit drug use during the past 12 months. 11. Receipt of an experimental agent (vaccine, drug, device, etc.) within 60 days before enrolment or expects to receive an investigational agent during the study period. 12. Receipt of any licensed vaccine within four weeks before enrolment in this study. 13. Known sensitivity to any ingredient of the study vaccines, or a more severe allergic reaction and history of allergies in the past. 14. Receipt of immunoglobulin or other blood products within the three months prior to vaccination in this study. 15. Immunosuppression as a result of an underlying illness or treatment with immunosuppressive or cytotoxic drugs, or use of anticancer chemotherapy or radiation therapy within the preceding 36 months. 16. Long-term use (> 2 weeks) of oral or parenteral steroids (glucocorticoids) or high-dose inhaled steroids (>800 mcg/day of beclomethasone dipropionate or equivalent) within the preceding six months (nasal and topical steroids are allowed). 17. Any history of hereditary angioedema or idiopathic angioedema. 18. Any history of anaphylaxis in relation to vaccination. 19. Any history of albumin-intolerance. 20. Pregnancy, lactation, or willingness/intention to become pregnant during the study. 21. History of any cancer. 22. History of severe psychiatric severe conditions likely to affect participation in the study.

	23. A bleeding disorder (e.g. factor deficiency, coagulopathy or platelet disorder, or prior history of significant bleeding or bruising following IM injections or venepuncture. 24. Any other serious chronic illness requiring hospital specialist supervision. 25. Chronic respiratory diseases like severe acute respiratory syndrome (SARS), including mild asthma. 26. Chronic cardiovascular disease, gastrointestinal disease, liver disease, renal disease, endocrine disorder, and neurological illness 27. Morbidly obese (BMI?35 kg/m2) or underweight (BMI ?18 kg/m2). 28. Living in the same household of any COVID-19 positive person. (at the time of screening only). 29. Any other condition that in the opinion of the investigator would jeopardize the safety or rights of a volunteer participating in the trial or would render the subject unable to comply with the protocol. Re-Vaccination Exclusion Criteria 30. Pregnancy. 31. Anaphylactic reaction following administration of the investigational vaccine. 32. Virologically confirmed cases SARS-CoV-2 infection

Method of Generating Random Sequence	Computer generated randomization
Method of Concealment	Centralized
Blinding/Masking	Participant, Investigator and Outcome Assessor Blinded

Primary Outcome

Outcome	Timepoints
GMT of neutralizing antibodies (NAb's) by MNT/PRNT assays across the two groups.	days 0, 28, 42, 90 and 180

Secondary Outcome

Outcome	Timepoints
The occurrence of immediate adverse events and Serious adverse evnts	days 0, 28, 42, 90 and 180

Target Sample Size	**Total Sample Size=**200 **Sample Size from India=**200 **Final Enrollment numbers achieved (Total)=**0 **Final Enrollment numbers achieved (India)=**200
Phase of Trial	Phase 2
Date of First Enrollment (India)	13/09/2023
Date of First Enrollment (Global)	No Date Specified
Estimated Duration of Trial	**Years=**0 **Months=**9 **Days=**0
Recruitment Status of Trial (Global)	Not Applicable
Recruitment Status of Trial (India)	Completed
Publication Details	NOT APPLICABLE

Brief Summary

A Phase 2, Randomized, Double Blind, Multicenter Study to Evaluate the Immunogenicity, Reactogenicity and Safety of an Intranasal Adenoviral vector COVID-19 vaccine (BBV154) in Healthy Volunteers.

Inclusion

1. Ability to provide written informed consent

2. Participants of either gender of age between ?18 to ?60 years.

3. Good general health as determined by the discretion of investigator

(vital signs (heart rate ?60 to?100 bpm; blood pressure systolic ?90

mm Hg and <140 mm Hg; diastolic ? 60 mm Hg and <90 mm Hg; oraltemperature <100.4ºF), medical history, and physical examination).

4. Expressed interest and availability to fulfil the study requirements.

5. For a female participant of child-bearing potential, planning to avoid

becoming pregnant (use of an effective method of contraception or

abstinence) from the time of study enrolment until at least four weeks

after the last vaccination

6. Male subjects of reproductive potential: Use of condoms to ensure

effective contraception with the female partner from first vaccination

until 3 months after last vaccination

7. Male subjects agree to refrain from sperm donation from the time of

first vaccination until 3 months after last vaccination

8. Participants must refrain from blood or plasma donation from the time

of first vaccination until 3 months after last vaccination

9. Agrees not to participate in another clinical trial at any time during the

study period.

10. Agrees to remain in the study area for the entire duration of the study.

11. Willing to allow storage and future use of biological samples for future

research.

Exclusion

1. History of any other COVID-19 investigational/or licensed vaccination.

2. Unacceptable laboratory abnormality at screening (prior to first vaccination) or safety testing, as listed below

3. Confirmed SARS-CoV-2 at the time of screening using RT-PCR and ELISA method.

4. Any history of facial nerve paralysis

5. History of cold, sneezing, nasal obstruction in the past 3 days.

6. Prescribed usage of any nasal spray/or nasal drop medication

7. Any significant abnormality altering the anatomy of the nose in a substantial way or nasopharynx that may interfere with the aims of the study and in particular any of the nasal assessments or viral challenge (historical nasal polyps can be included, but large nasal polyps causing current and significant symptoms and/or requiring regular treatments in the last month are excluded)

8. For women of child bearing potential, a positive serum pregnancy test (during screening within 45 days of enrolment) or positive urine pregnancy test (within 24 hours of administering each dose of vaccine).

9. Temperature >38.0°C (100.4°F) or symptoms of an acute self-limited illness such as an upper respiratory infection or gastroenteritis within three days prior to each dose of vaccine.

10. Medical problems as a result of alcohol or illicit drug use during the past 12 months.

11. Receipt of an experimental agent (vaccine, drug, device, etc.) within 60 days before enrolment or expects to receive an investigational agent during the study period.

12. Receipt of any licensed vaccine within four weeks before enrolment in this study.

13. Known sensitivity to any ingredient of the study vaccines, or a more severe allergic reaction and history of allergies in the past.

14. Receipt of immunoglobulin or other blood products within the three months prior to vaccination in this study.

15. Immunosuppression as a result of an underlying illness or treatment with immunosuppressive or cytotoxic drugs, or use of anticancer chemotherapy or radiation therapy within the preceding 36 months.
16. Long-term use (> 2 weeks) of oral or parenteral steroids (glucocorticoids) or high-dose inhaled steroids (>800 mcg/day of beclomethasone dipropionate or equivalent) within the preceding six months (nasal and topical steroids are allowed).
17. Any history of hereditary angioedema or idiopathic angioedema.
18. Any history of anaphylaxis in relation to vaccination.

19. Any history of albumin-intolerance.
20. Pregnancy, lactation, or willingness/intention to become pregnant during the study.
21. History of any cancer.
22. History of severe psychiatric severe conditions likely to affect participation in the study.
23. A bleeding disorder (e.g. factor deficiency, coagulopathy or platelet disorder, or prior history of significant bleeding or bruising following IM injections or venepuncture.
24. Any other serious chronic illness requiring hospital specialist supervision.
25. Chronic respiratory diseases like severe acute respiratory syndrome (SARS), including mild asthma.
26. Chronic cardiovascular disease, gastrointestinal disease, liver disease, renal disease, endocrine disorder, and neurological illness
27. Morbidly obese (BMI?35 kg/m2) or underweight (BMI ?18 kg/m2).
28. Living in the same household of any COVID-19 positive person (at the time of screening only).
29. Any other condition that in the opinion of the investigator would jeopardize the safety or rights of a volunteer participating in the trial or would render the subject unable to comply with the protocol.

Re-Vaccination Exclusion Criteria

30. Pregnancy.

31. Anaphylactic reaction following administration of the investigational vaccine.

32. Virologically confirmed cases SARS-CoV-2 infection

Objectives

Primary

1. To evaluate the humoral immune responses of BBV154.

Secondary

2. To evaluate the reactogenicity and safety of BBV154 (Adenoviral vectored based SARS-CoV-2 virus) vaccine administered via the intranasal route.

3. To evaluate the immune responses against spike protein of SARSCoV-2 virus and Adenovirus vector.

Exploratory

*To evaluate the vaccine induced Cell mediated immune response.

* To evaluate the vaccine secretory IgA antibody response.

* To evaluate the safety of the vaccine in terms of assessing

adverse event of special interest (AESI).

END POINTS

Primary

*GMT of neutralizing antibodies (NAb's) by MNT/PRNT assays across the two groups, from baseline to days 6+3, 28+2, 42±2, 90±7 and 180±7

Secondary

* The occurrence of immediate adverse events within 2 hours of vaccination [Time Frame: within 2 hours post each vaccination]

*The occurrence of solicited adverse events within seven days of vaccination [Time Frame: 7 days].

*The occurrence of serious adverse events (SAEs) [Time Frame: throughout the study duration].

*The occurrence of any unsolicited adverse events up to day 35 from 1st dose vaccination. [Time Frame: up to day 35 from 1st dose vaccination].

GMTs of binding antibodies
(bAb's) IgA and IgG against spike
protein across the two groups,
from baseline to days 28+2, 42±2,
90±7 and 180±7.
*Immune response (binding/ or
neutralization) to the vector will be
assessed by ELISA from baseline
to days 28+2, 42±2, 90±7 and
180±7.
Exploratory
*Vaccine induced cell mediated
immunogenicity and antigen
specific T-cell responses and
cytokines across the two groups,
from baseline to days 6+3, 28+2,
42±2, 90±7 and 180±7.
*GMTs of binding antibodies
(bAb's) and neutralizing antibody
titers.
* The occurrence of adverse
event of special interest (AESI).
[Time Frame: throughout the study
duration].

STUDY DESIGN

A Phase 2, Randomized, Double Blind, Multicenter Study to Evaluate the Immunogenicity, Reactogenicity and Safety of an Intranasal Adenoviral vector COVID-19 vaccine (BBV154) in Healthy Volunteers.

The study is designed to evaluate the safety, reactogenicity, and immunogenicity of four groups of healthy volunteers who receive either intranasal vaccine in the form of drops on day 0 and day 28 (Group 1) or placebo via intranasal route with either dropper (Group 2). A total of 200 subjects will be enrolled in 4:1 ratio and will be conducted in a double blinded manner.

Group 1 (BBV154-Dropper): In this group, 160 participants will be recruited and administered with 0.5 mL of vaccine (BBV154) on day 0 and day 28 via intranasal route with a dropper.

Group 2 (Placebo with Dropper): In this group, 40 participants will be recruited and administered with placebo on both day 0 and day 28 via intranasal route with validated dropper.

An interim analysis will be performed at day 42 for Immunogenicity, Safety and submitted to CDSCO.