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Mixing of the COVID-19 vaccines Covishield and Covaxin for safety assessment

Submission date	Recruitment status	[_] Prospectively registered
30/12/2021	No longer recruiting	[X] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
06/01/2022	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
20/12/2022	Infections and Infestations	

Plain English summary of protocol

Background and study aims
Vaccination is protective against COVID-19 infection. Based on recent studies by ICMR study which included 18 patients and Com- COV study, Combi Vacs trial, It has been observed that combination vaccines elicit a better immune response. There are a few studies from India on combination vaccines. We aim to assess the safety of mixing vaccines in a large number of healthy volunteers.

Who can participate?
Healthy volunteers aged 18-65 years (inclusive of both) with no medical history or evidence of COVID-19 and not vaccinated for COVID-19/influenza

What does the study involve?
Participants will be divided into four groups. Two groups will be given homologous vaccines and two groups will be given heterologous vaccines (mix and match). Blood samples will be collected at 28 days after the 1st dose and 14 days after the 2nd dose for assessing antibody levels.. Participants will be closely monitored for any adverse effects for 3 months.

What are the possible benefits and risks of participating?
No adverse effects are reported from a combination of vaccines. The participants will have the benefit of a reduced risk of getting severe COVID-19.

Where is the study run from?
Asian Healthcare Foundation (India)

When is the study starting and how long is it expected to run for?
August 2021 to November 2021

Who is funding the study?
Asian Healthcare Foundation (India)

Who is the main contact?
Dr Bhanu Prakash Reddy Attunuru
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Contact information

Type(s)
Principal investigator

Contact name
Dr Bhanu Prakash Reddy Attunuru

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Additional identifiers

Protocol serial number
COVID-19-21;Version 1.0 ;dt :11 th August ,2021

Study information

Scientific Title
Studying the immunogenicity and safety of combination vaccines for COVID-19

Acronym
MIX-VAC

Study objectives
Mixing of the vaccines Covishield and Covaxin will elicit a better immune response.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 25/08/2021, Institutional Ethics Committee, Asian Institute of Gastroenterology (IEC-AIG) (6-3-661, Somajiguda, Hyderabad - 500 082, India; +91 (0)40 23378888; iecaig2044@gmail.com), ref: AIG/IEC-CT 51/08.2021-01

Primary study design

Interventional

Study design
Interventional randomized controlled trial

Study type(s)
Prevention

Health condition(s) or problem(s) studied
COVID-19 (SARS-CoV-2 infection)

Interventions
200 healthy volunteers will be recruited according to the inclusion and exclusion criteria as mentioned below. After taking informed consent they will be divided into four groups by computer-generated randomisation. Two groups will be given homologous vaccines and two groups will be given heterologous vaccines (mix and match). Blood samples will be collected 28 days after the 1st dose and 14 days after the 2nd dose. Participants will be closely monitored for any adverse effects for 3 months. Blood samples will be used for assessing S1, S2, and RBD specific antibody titres.

Group 1 received Covishield on day 0 and Covishield on day 28
Group 2 received Covaxin on day 0 and Covaxin on day 28
Group 3 received Covishield on day 0 and Covaxin on day 28
Group 4 received Covaxin on day 0 and Covishield on day 28

Intervention Type
Biological/Vaccine

Phase
Not Applicable

Drug/device/biological/vaccine name(s)
Covishield, Covaxin

Primary outcome(s)
Immunogenicity: neutralising antibody titres against S1/S2 and RBD measured by electrochemiluminescence at baseline, 28 days and 45 days after complete vaccination

Key secondary outcome(s)
The safety of different vaccine combinations assessed on day 28 (4 weeks after 1st dose), day 45 (2weeks after 2nd dose) and day 60 using patient records, blood tests, and questionnaire:
1. Major adverse events
2. Laboratory parameters complete blood analysis, renal function tests, and liver function tests.
3. Clinical monitoring through a simple questionnaire

Completion date
12/11/2021

Eligibility

Key inclusion criteria
1. Adult male or female human volunteer aged 18-65 years (inclusive of both) and not vaccinated for COVID-19/influenza, willing and able to provide written, signed and dated informed consent
2. Negative immunoglobulin M (IgM) SARS-CoV-2 antibodies through enzyme immunoassay test result
3. Negative COVID-2019 Reverse Transcriptase-Polymerase Chain Reaction (RT-PCR) test result at the screening visit
4. No medical history or evidence of COVID-19
5. No acute infections and/or respiratory diseases within 14 days before enrollment
6. No evidence of vaccine-induced reactions or complications after receiving immunobiological products in the past medical history
7. Willing to give consent to use effective contraception methods during the study
8. Negative urine pregnancy test at the screening visit (for childbearing aged women)
9. Negative human immunodeficiency virus (HIV 1 & 2), syphilis, hepatitis B and C test results

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
65 Years

Sex
All

Total final enrolment
44

Key exclusion criteria
1. Aged <18 years of age
2. Any vaccination/immunization within 30 days before enrollment
3. Any treatment with steroids (except hormonal contraceptives) and/or immunoglobulins or other blood products within 30 days before enrollment
4. Any treatment with immunosuppressive therapy within 3 months before enrollment
5. Any drug allergy (anaphylactic shock, Quincke's edema, polymorphic exudative eczema, atopy, serum disease), hypersensitivity or allergic reaction to immunobiological products, known allergic reactions to study drug components, acute exacerbation of allergic diseases on enrollment day
6. Any neoplasms in the past medical history
7. Donated blood or plasma within 3 months before enrollment
8. Any history or evidence of splenectomy
9. Any immunodeficiency state
10. Any history or evidence of anorexia or protein deficiency of any origin

11. Alcohol or drug addiction in the past medical history
12. Participation in any other interventional clinical trial within 3 months
13. Any other condition that the study physician considers as a barrier to the trial completion as per the protocol
14. Pregnancy or breastfeeding
15. Subjects who test positive for Coronavirus disease through RT-PCR SARS CoV-2 Test and positive anti-COVID antibodies

Date of first enrolment
28/08/2021

Date of final enrolment
20/09/2021

Locations

Countries of recruitment
India

Study participating centre
AIG Hospitals
No 136, Plot No 2/3/4/5 Survey
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500032

Sponsor information

Organisation
Asian Healthcare Foundation

Funder(s)

Funder type
Research organisation

Funder Name
Asian Healthcare Foundation

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Dr Bhanu Prakash Reddy Attunuru (drbhanu.prakash@aighospitals.com).

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		21/03/2022	20/12/2022	Yes	No
Protocol file	version 1.0	11/08/2021	31/12/2021	No	No