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# **Original article**

# A compensative study about the number of coronavirus breakthrough infections during post vaccination period

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# ARTICLEINFO

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### ABSTRACT

**Aim:** There are a number of vaccines used against SARS CoV-2 to create immunity belt to reduce the infections; therefore, we decided to conduct a questionnaire study among the vaccinated persons from different countries to find the vaccine effectiveness. **Method:** A telephone call as well as a personal meeting were conducted with 30 different vaccinated with the following questions: how many times they were vaccinated, how many times have they gotten the breakthrough infections, and how long was this infection? **Results:** The analysis indicated that almost all vaccinated persons had a breakthrough infection. The air travel was discovered as one of the causes of the breakthrough infections. There were a few fatalities, but hospitalization was rare. The results do not support the fact that vaccines can provide 95% immunity, as claimed in many publications. **Conclusion:** The majority of vaccinated persons got breakthrough infections of different intensities. It is very clear that vaccination induced immunity is not sufficient to prevent infections, which cause different degrees of complications. There is an urgent need to improve these vaccines and the question is whether the 5<sup>th</sup> and future doses will be of any use to the normal population.

# Introduction

Since January 2020, there was a pandemic outbreak of coronaviruses from a Chinese city called Wuhan [1-3]. Real time PCR is an important method to be used in pandemic outbreak as done in the H1N1 outbreak in 2009, but it was shown that approved real time PCR kits for detection of SARS CoV-2 are likely to give questionable results [4,5].

There are a number of different vaccines being developed and used in different countries. There are a number of research works published about the effectiveness of some of these vaccines in different settings like different mutation infections in different countries. World health organization has its own website, where it is being discussed how effective these different vaccines are along with their kinds [6]. There are contents on website from John Hopkin Hospital, where there are different documents, so called briefs, showing that the different types of vaccinations are available and their effectiveness is up to 95% against the severe form of the infection after 7- and 12-days of post vaccination [7].

It is shown that there is a reduction in effectiveness with the duration of vaccination. **Wu et al.** published an analysis of data from different publications and showed that there is reduction in effectiveness over the time against infections, hospitalizations and change in the mortality pattern. It is suggested that other precautions, like masks and hygienic measurements are needed to reduce the

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chances of getting infections [8]. Other groups have also indicated that there is reduction in vaccine effectiveness in different countries like Japan, Qatar, Czech Republic, UK, USA, Hong Kong, etc. [9-16]. The vaccine effectiveness pattern is also studied in the cancer patients [17]. The change in the pattern of effectiveness of coronavirus vaccine has also been shown in students [18].

In this work, we are aiming to find out the vaccine effectiveness in a small group of persons from different countries, as well as attempting to point out the duration of illness as well as source of the infections.

#### Methods

In this work, the vaccinated persons from different countries were interviewed in a personal meeting as well as telephone interviews to know whether these vaccinated persons got any infection of SARS CoV-2 after they were vaccinated with starter dose, first dose and second dose. The following questions were asked and noted:

If they got breakthrough infection, how long did they remain in bed, and what complications have they suffered? It was also asked from where they got the infection and how many times they suffered after the vaccination from breakthrough infections? to see whether they have only a single infection or multiple infections. The around age and gender were also noted.

The data was compiled in a table to calculate the percentage of different parameters like rate of breakthrough infections, average illness period, and rate of complications.

Each person was given a number instead of their personal names, so that no one can identify these persons and their data; hence, there was no need for any research ethics committee approval for this research work.

#### Results

The data was presented in a table, where data from interviews with 30 persons was shown. These persons came from Germany, India, USA and Norway. It showed that 27/30 (90%) persons have gotten all 3 doses of vaccinations. None of 30 persons took  $3^{rd}$  booster dose also called  $4^{th}$  dose.

The persons used 2 types of vaccinations; like vector based and mRNA vaccines. The age of persons took part in this study varies between 18 years to 83 years. The period of illness was between 2 days to 30 days, if the participant got the breakthrough infection. The shortest period of illness was 2 days with light symptoms only in one person, but 27 persons (90%) have a duration of illness more than one week. Most of the breakthrough infections showed full blown symptoms like coughing, an itching throat, pressure on the ears, headache, fever, joint pains and running nose. 13 Persons (43.33%) had multiple infections.

4 persons (4/30=13.30%) got the infection after air travel. 13 persons (43.33%) got multiple breakthrough infections, out of these, 10 persons got more than two breakthrough infections and 3 were with 2 times. All of them recovered fully; however, 4 vaccinated persons (13.30%) have passed away, but one person got the infection during air travel on arrival of its travel destination. Two deceased persons had infection too. One deceased person had a tumor of unknown origin. The age of decreased persons varies between 50 and 80 years. All were males. 2 deceased persons were hospitalized also, but the rest of infected persons from this study did not require hospital. One of the complications in breakthrough infection was the activation of autoimmune diseases leading, to alopecia and reduction in the eye sight. Very strong weakness was one of the key complications in some of persons with full blown disease.

Person	First	Second	Third	Infection	Duration	Gender*	Hospitalisation	Fatality	Transport
	dose	dose	dose		(week)				stress
1	+	+	+	Infection	4	F			
2	+	+	+	Infection (multiple)	6	М			
3	+	+	+	Infection (multiple)	4	F			
4	+	+	+	Infection (multiple)	1	F			
5	+	+		Unknown		М		Fatality	
6	+	+	+	Infection (multiple)		М		Fatality	
7	+	+	+	Infection	1	М			
8	+	+	+	Infection	4	М			
9	+	+	+	Infection	1	F			air travel
10	+	+	+	Infection (multiple)		F			air travel
11	+	+	+	Infection (multiple)		F			
12	+	+	+	Infection (multiple)		М			air travel
13	+	+	+	Infection (multiple)	3	М			
14	+	+	+	Infection (multiple)	4	F			
15	+	+	+	None		М			
16	+	+	+	Infection	4	М	Hospitalization	Fatality	
17	+	+		Infection	1	М	Hospitalization	Fatality	air travel
18	+	+	+	Infection	1	F			
19	+	+		Infection (multiple)	2	F			
20	+	+		Infection (multiple)		F			
21	+	+		Infection (multiple)	2	F			
22	+	+	+	Infection	3	F			
23	+	+	+	Infection (multiple)		F			
24	+	+	+	Infection	2	М			
25	+	+	+	Infection	2	F			
26	+	+	+	Infection	1	М			
27	+	+	+	Infection	3	F			
28	+	+	+	Infection	1	М			
29	+	+	+	Infection	3	F			
30	+	+	+	none		М			

**Table 1.** This shows the number of vaccinated persons and their vaccination status along with parameters of breakthrough infection

\* F= Female \* M= Male

#### Discussion

This small study is showing one thing clearly; that almost every vaccinated person got single or multiple breakthrough infections,but the duration varies. This opens the question whether the claims made from the vaccine manufacturers, publications as well as authorities were true regarding the vaccine is more than 95 % effective [7]. Many publications indicate that there is a reduction of immunity with time [8-15]. The data shown here is in agreement with these publications. Our data is opening the doors to discuss whether to use a vaccine with such a low immunity. A number of persons got infections while doing the air travel as this is another proof that traveling is one key factor in spreading the viral infection, along with the well-known fact that air travel, also known as transport stress causes immunosuppression, which contributes to get the infections in closed room such as in case of an aeroplane. There is hardly any publication that has studied the effect of air travel in vaccinated persons, as most travelers are vaccinated now. This is a new result, which needs to be studied further and aerospace industry needs to make the travel safer. One simple application is that this industry can use UV-C light robotics to disinfect the aeroplanes to reduce the viral load as this light has been used to disinfect for many decades. Another factor, which may be contributing to the increase in the spread of infection, are the questionable real time PCR tests being used to test the persons. We have mentioned such tests in our other publication

[5]. Even one of the fatalities mentioned is the data was from a person, who tried to travel as a tourist to Turkey after the vaccination and this person caught infection as he was suffering from an autoimmune disease. On arrival to Turkey, this person got the SARS CoV-2 infection and termination occurred within 5- 6 days. The press created an environment that vaccine is going to be highly effective, but the data in this publication shows the opposite as these vaccines need to be improved as many of above-mentioned cases of vaccinated got full blown infections.

It seems that a number of coronavirus infections in vaccinated persons lead to complications e.g., loss of hair and activation of auto immune disease. We are of opinion that some complications are involving neurological regions e.g., one of vaccinated persons after the recovery of breakthrough caused two times car accidents within one week, but this person made never such an accident during the whole life (data not shown). Similarly other vaccinated person has committed suicide. Such complications need a very careful scientific analysis as these are going to cause a burden on the health system. More research is needed here. The regulatory authorities must collect the data of decreased vaccinated persons as many of these incidents are occurring after 6 months or later during post vaccination period. We are of the opinion that these vaccinations with breakthrough infections may cause depression in some cases, but this suspicion needs to be examined thoroughly.

A number of breakthrough cases were treated with Genekampower molecule successfully as this molecule leads to reduction of the symptoms very quickly (Data not shown!).

The biggest problem is that breakthrough infections are causing complications; hence there is a need for another strategy to prevent the future infection. We are working on such solutions as it seems that our molecule called Genekampower molecule is in the position to do this job. This work will be published later.

This work indicates an urgent need to improve the vaccine and another question is that whether a  $5^{\text{th}}$  and further dose of the vaccine will be of any use if persons are going to get again breakthrough infections and its complications.

### Conclusion

In this work, we have shown the data about the effectiveness of corona vaccines as most of

vaccinated got once or multiple infections. Air travel may be a contributing factor for breakthrough infections. A number of complications are shown. The work shows that there is an urgent need to improve the present vaccines, which do not provide good immunity.

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#### **Conflict of interest**

There is no conflict of interest.

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