Post-Vaccination Symptoms of Covishield Vaccine Among Frontline Workers of a Tertiary Care Center in South Kerala

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INTRODUCTION

Widespread vaccination with highly effective vaccines against COVID-19 is an important tool in the efforts to control this pandemic, which has affected health and life across the world.[1] Although the protective efficacy and side effects of the new vaccines are frequently discussed,[2] little is known about their post-vaccination effects outside of clinical trial conditions.[3] In order to address the issue of vaccine hesitancy among the general population and manage post-vaccination symptoms, it is necessary to identify the symptoms immediately following COVID-19 vaccination. Hence, we conducted a study to identify the post-vaccination symptoms after the first dose of vaccine.

METHODS

Study Design:- A descriptive cross-sectional study

Study Setting:- 900-bed tertiary hospital in South Kerala

Study Subjects:-All those who received their first dose of Covishield vaccine between 19th of January and 5th of February 2021

Study Tool:- A pretested questionnaire, developed by the authors, included the following sections: baseline demographic information, the category of healthcare worker, the time of vaccination, symptoms after vaccination, duration of symptoms, information about health care utilization, and pre-existing co-morbidities.

Data Collection procedure:- Approval was obtained from the institutional ethics committee. Informed consent was taken from the participants.Each beneficiary was given the questionnaire (Google forms) one week after obtaining their first dose through email and Whatsapp groups.

Statistical Analysis:- Categorical variables are described as frequencies and percentages, while continuous variables are presented as mean standard deviation (SD). Chi Square was used to find an association between post-vaccination symptoms and sociodemographic factors and vaccination-derived factors.

RESULTS

Demographic Characteristics of vaccinated healthcare workers-

Of the 2500 healthcare workers who received the Covishield (Astra-Oxford) vaccine at the study centre, 1115 healthcare workers completed the questionnaire over a three-week period. The mean age was 31.42 years ± 11 and majority were females (75.1%).Among those who responded, the majority were medical students (28.3%), followed by nurses (24.8%), doctors (19.2%), administrative staff (8.9%), paramedical staff (8.5%), house surgeons (6.9%) and others (3.4%), which included housekeeping staff and security staff.

COVID-19 Vaccine Reported Side Effects of healthcare workers-

The majority of the respondents (95.1%) reported post-vaccination symptoms. The most common symptoms were pain at the site of injection (79.8%) which was more prevalent in the younger age group of 476 (53.4%) healthcare workers aged 21–30 years. No significant association was noted between symptomatic status and various other variables in the study sample. (Table 1)

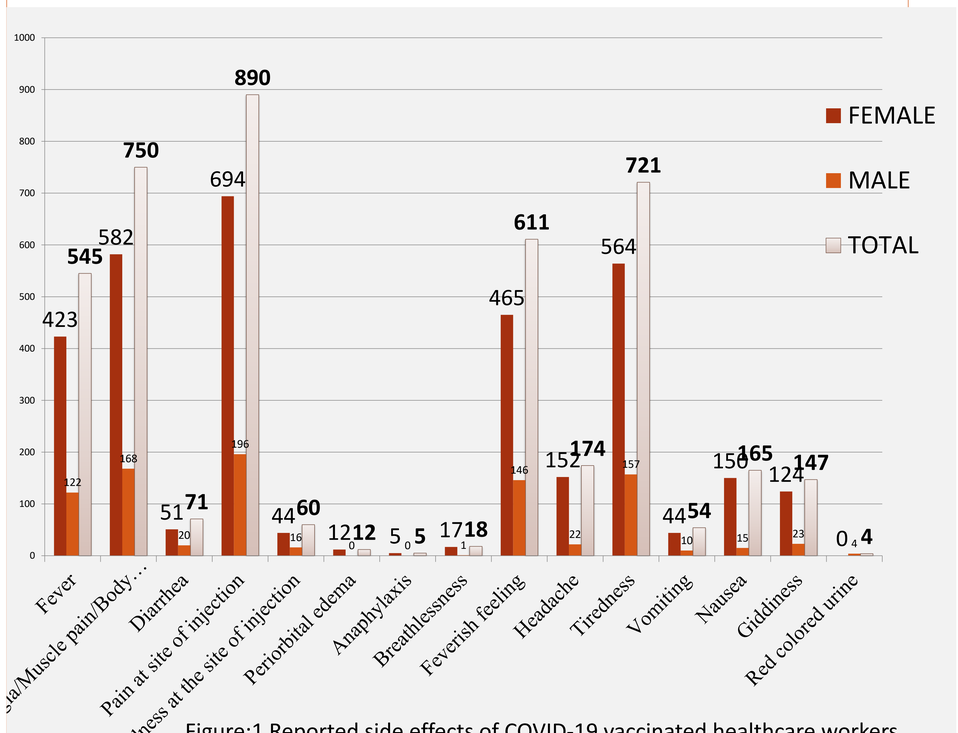

Figure:1 Reported side effects of COVID-19 vaccinated healthcare workers

Table 3: Association between symptomatic status and various other factors in the study sample

Variables		No symptoms		Symptoms		Total	P value
Age <50	No	49	4.70%	992	95.30%	1041	0.192
	Yes	6	8.10%	68	91.90%	74	
Gender	Female	39	4.70%	798	95.30%	837	0.465
	Male	16	5.80%	262	94.20%	278	
Allergy	No	0	0.00%	55	5.00%	55	0.61
	Yes	5	100.00%	1055	95.00%	1060	
Continue work on day of vaccination	No	12	4.30%	269	95.70%	281	0.553
	Yes	43	5.20%	791	94.80%	834	
COVID-19 infection	No	51	4.80%	4	8.20%	55	0.286
	Yes	1015	95.20%	45	91.80%	1060	
Place of work	Clinical	33	4.70%	665	95.30%	698	0.598
	Laboratory	2	6.50%	29	93.50%	31	
	Others	19	5.80%	311	94.20%	330	

Table-1 Association between symptomatic status and other variables in study sample

CONCLUSION

There are a lot of common side effects reported with vaccines. All those are minor side effects that can be managed with symptomatic treatment such as paracetamol to resolve symptoms quickly. This information will help us educate the public and reduce vaccine hesitancy and misinformation related to the vaccine. Further, additional independent research studies are required to identify the pathophysiology of these post-vaccination symptoms, and hence strengthen the public's confidence in accepting a new vaccine.

REFERENCE

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