



STUDY OF ACCEPTANCE OF COVID-19 VACCINE AND ITS ASSOCIATED FACTORS AMONG POST GRADUATE STUDENTS IN A MEDICAL COLLEGE

Physiology

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ABSTRACT

COVID-19 is one of the corona viruses in which COVID-19 positive patients developed symptoms like fever, cough, shortness of breath, fatigue, loss of appetite, sputum production, joint pain, nausea, vomiting and diarrhea. Exacerbation of COVID-19 has developed an urge to introduce vaccine for COVID-19 and UK became first country to approve COVID-19 vaccine produced by Pfizer/BioNtech globally. India launched its Phase I vaccination programme against COVID-19 on 16th January, 2021 with two vaccines (Covishield and Covaxin). Manipur started vaccination simultaneously with Covishield among health care workers and frontline workers. A study was conducted about the acceptance of COVID 19 vaccine among 200 post graduates medical students irrespective of the age and sex by using self administered questionnaires. It was found that only about 87(43.5%) Postgraduate students got vaccinated. The common side effects include pain, fever, myalgia, increase in sleep and decrease in sleep. It can be concluded that no major side effects were associated with this vaccine.

KEYWORDS

COVID-19 ,COVID-19 vaccine Pfizer/BioNtech, acceptance of vaccine, side effects

INTRODUCTION

Corona virus disease-19(COVID-19) is one of the corona viruses which are important pathogens of humans and animals that can cause disease ranging from common cold to more severe and even fatal respiratory infection. Severe acute respiratory syndrome coronavirus 2 infection can cause both pulmonary and systemic inflammation, leading to multi-organ dysfunction in patients at high risk. Acute respiratory distress syndrome and respiratory failure, sepsis, acute cardiac injury and heart failure were the most common critical complications during exacerbation of COVID-19.

Outbreak of novel coronavirus COVID-19 disease, which was first reported in Hubei province, China in 2019 has been rapidly spreading globally with high fatality rate the need for an effective vaccine urgently felt to control the pandemic outbreak. It has rapidly spread globally with approximately 3 million confirmed infections and 200,000 deaths within the first four months. Almost similar to COVID-19 disease, Middle East Respiratory (MERS) symptom appear as deadly as coronavirus diseases in the middle east and respiratory illness was the largest complication. A substantial number of patients recovering from MERS develop lung fibrosis on imaging studies. Reduced lung function and pulmonary fibrosis seen in patients who recovered from MERS.

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No such study is presently available regarding the acceptance of the vaccine in India and Manipur in particular. This study is aimed at determining the acceptance of the COVID-19 vaccine among the health workers in Manipur.

MATERIALS AND METHOD

A cross-sectional study was carried out in February 2021 in the Department of Physiology, Regional Institute of Medical Sciences, (RIMS), Imphal, Manipur. 200 healthy post graduate medical students irrespective of age and sex took part in the study and their responses were collected by using self administered questionnaires and the data was analysed.

DISCUSSION

In our study, it was found that about only 87 (43.5%) of the students had availed the vaccine. The acceptance of the vaccine among the post graduate students was found to be less than in the study done by Harpan H³ where 911(67%) of the subjects had the vaccine who were mainly health care workers and those who have high perceived risk of COVID-19 infection.

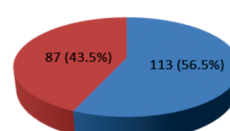
The study showed that after vaccination, the students developed pain at the site of injection (26%), myalgia (8%), fever (22%), increased sleep pattern (26%), and decreased sleep pattern (8%), only (29%) of the students were able to resume normal activity within 24 hours. It is found in this study most of them didn't required hospitalisation which is similar to a study done by Jayadevan R⁵. In our study, it is found that pain at the site of injection is 52 (26%) post graduate students which was similar with the finding by Jayadevan R⁵ where the pain at the site of injection was felt by (27%) of the subjects. Further, the students in our study had other side effects like myalgia (8%) and fever (22%) respectively, which was less compared to the study by Jayadevan R⁵ where myalgia and fever were seen in 44% & 34% of the health workers respectively. The other common side effects seen are headache (28%), diarrhoea (3%) and nausea (8%) within the first 12 hours after vaccination. In another study done by Abanoub Riad¹¹ among health workers in Czech Republic, the study used a validated questionnaire with twenty-eight multiple-choice items covering the participants' demographic data, medical anamneses, COVID-19-related anamneses, general, oral, and skin-related side effects the common side effect of Covid 19 vaccine includes pain at the injection site (89.8%), followed by fatigue (62.2%), headache (45.6%), muscle pain (37.1%), and chills (33.9%). But all the reported side effects were more prevalent in the ≤43-year-old group than the > 43-year-old group, with a statistically significant difference in the case of injection site pain (93.3% vs. 86.2%), headache (50.7% vs. 40.2%), fatigue (65.9% vs. 58.3%), muscle pain (40.9% vs. 33.2%), and feeling unwell (26% vs. 19.8%). Regarding the general side effects' duration, 45.1% of them lasted for 1 day, while 35.8% lasted for 3 days, 9.4% lasted for 5 days, 5.3% lasted for one week, 3% lasted for over a week, and 1.4% for over a month. In our study, pain at site of injection and myalgia was felt by 52 (26%) and 4 (8%), whereas in the study done by Abanoub Riad¹¹, pain at site of injection and myalgia were about 93.3% & 40.9% respectively among them and age group ≤43 year old group health workers, so the occurrence of side effects were much higher than in our study done among post graduate students.

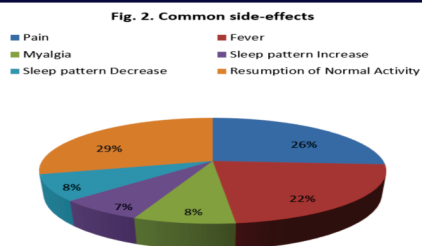
CONCLUSION

It is observed that acceptance of the vaccine by the students seems to be low, despite the target of the Indian government. The vaccine seems to cause minimal side-effects with no fatal case so far and many of them resume their daily activities without much problems. It is believed that this vaccine were able to protect us from spreading the infection by causing herd immunity among the population which may help in atleast control of the dreaded disease if not cure.

Fig. 1. Acceptance of vaccine

■ Total no. Of PG vaccinated ■ Total no. Of PG not vaccinated





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