

Letter to the Editor

Letter to editor, in response to paper entitled “Side effects after COVID-19 vaccinations among residents of Poland”

Dear Editor,

We highly appreciate the study conducted by Andrzejczak-Grzadko et al¹, which reported side effects after using the COVID-19 vaccine in Poland, published in *European Review for Medical and Pharmacological Science*. As we know, scientific publications regarding the side effects of the COVID-19 vaccine are still very limited. Andrzejczak-Grzadko et al¹, reported that the first dose of the AstraZeneca vaccine's side effects was more common than the first dose of the Pfizer vaccine. More than 50% of each side effect, including pain at the injection site, arm pain, muscle pain, headache, fever, chills, and fatigue, were observed in the AstraZeneca vaccine. On the other hand, in the Pfizer vaccine, only pain at the site of injection and arm pain were observed to be more than 50%¹.

In Indonesia, a large-scale vaccination program has been carried out to suppress new cases of COVID-19, which has sharply increased recently. Until now, the COVID-19 vaccines used in Indonesia are produced by Sinovac Biotech, Moderna, AstraZeneca, and Pfizer and are classified as new types of vaccines with different effectivity. To assess vaccine safety, it is necessary to actively and passively monitor vaccine safety, known as adverse events following immunization, instead of using the term side effects. Adverse events are unexpected events without assessing whether there is a causal relationship with the vaccine or not.

Surveillance about adverse events following immunization is an important step to strengthen vaccine safety monitoring. With a rapid response system, a surveillance system, and good reporting of adverse events following immunization, vaccine safety profile will be defined immediately. By increasing vaccine safety, patient safety will certainly increase.

In a study about surveillance of COVID-19 vaccine side effects among hospital staff in a referral hospital in Indonesia, reported by Djanas et al², out 840 of hospital staff, the most side effects of COVID-19 vaccine (Sinovac) was headache (22.1%), muscle pain (39.6%), and tiredness (35.8%). As much as 32.7% of COVID-19 vaccine side effects occurred less than 24 hours. Based on the standard procedure of vaccination program in Indonesia, immediately after being given the vaccine, the patient is asked to remain seated for 30 minutes to observe if there is a rapid reaction to the vaccine or not. A further research was urgently required to analyze the adverse events of different COVID-19 vaccine in large population.

Andrzejczak-Grzadko et al¹ also reported that they did not analyze the relationship between age and side effects among vaccinated people in Poland. As we know, people of age more than 50 years are prioritized to be vaccinated to avoid a worse prognosis once infected by SARS-CoV-2. Interestingly, Djanas et al², reported no association between age (>50 years) and COVID-19 vaccine side effects. It means the COVID-19 vaccine was relatively safe in those above 50 years.

However, people over 50 years of age, especially 60 years or older, administering the vaccine should consider the risk of frail³. It is important to note that giving the vaccine does not necessarily guarantee that someone is 100% free from COVID-19 infection. Still, it will reduce

the severity of the disease if someone who has been vaccinated is infected with COVID-19. Therefore, high adherence to health protocols is very crucial during this pandemic. At the same time, we agree with Andrzejczak-Grzadko et al¹ that people must be informed of any possible adverse events before vaccination.

Conflict of Interest

The Authors declare that they have no conflict of interests.

References

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