Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the Editor

Re: 'Association between IgG antibody levels and adverse events after first and second BNT162b2 mRNA vaccine doses' by Braun et al

Yuchi Zhou [1], Xiangting Liu [2], Xia Wang [3], Hui Li [3], Guangting Zeng [3,*]

[1] Urology Department, The Fourth People's Hospital of Chenzhou, Chenzhou, China
[2] Reproductive Medicine Center, The First People's Hospital of Chenzhou, Xiangnan University, Chenzhou, China
[3] Department of Pharmacy, The First People's Hospital of Chenzhou, Xiangnan University, Chenzhou, China

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To the Editor,

Braun et al. [1] investigated the association of severe acute respiratory syndrome coronavirus 2 IgG antibody response levels with reported adverse events after the administration of first and second doses of the BNT162b2 (Pfizer Biotechnology) mRNA vaccine. They followed up for information on adverse events in a large number of vaccinated people over time using electronic questionnaires [1].

There seems to be a slight error in the article. The percentage of females who received the second dose, as shown in Tab 1 of the article, should be 45 rather than 55 [1]. Furthermore, the conclusion that IgG titres were associated with a higher likelihood of adverse events seems to be less convincing and requires further evidence. It is well known that antibody titres correlate with the strength of vaccine protection. Many factors can affect antibody titres, including the type of vaccine and history of infection [2]. Moreover, the severity of symptoms caused by an infection is related to antibody levels [3]. Similarly, symptoms of coronavirus disease 2019 (COVID-19) may include fever, fatigue, headache, and paraesthesia, and the more severe the infection, the higher the antibody titre level. In addition, the severity of COVID-19 is related to the risk of long COVID or post–COVID-19 syndrome, which also includes the aforementioned symptoms. Interestingly, studies on long or post–COVID-19 syndrome have suggested gender differences, with females being more prone to fatigue and anxiety [4], which is similar to the authors' findings that females are at higher risk of vaccine-related adverse events. With a high prevalence rate in Israel, it is difficult to distinguish between symptoms caused by vaccine-related adverse events and symptoms or sequelae of COVID-19 by collecting information from electronic questionnaires. It should also be noted that most adverse events associated with the BNT162b2 mRNA vaccine occurred within 48 hours of vaccination [5]; therefore, it is more reliable to send an electronic questionnaire to gather information at the time of vaccination rather than a week later for patients to review their symptoms.

Author contributions

YZ and GZ initiated and conceptualized the idea. GZ wrote the letter, and XL, XW, and HL revised the letter.

Transparency declaration

The authors declare that they have no conflicts of interest.

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* Corresponding author. Guangting Zeng, Department of Pharmacy, The First People's Hospital of Chenzhou, Xiangnan University, Chenzhou, China.
E-mail address: 1090651185@qq.com (G. Zeng).

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