To the Editor,

Mass vaccination is associated with known and unknown risks. Concerns are backed by increasing numbers of reports on moderate-to-severe side effects.\(^1\,^2\) Adverse events after vaccinations may be caused by the spike protein, adenoviral vectors, excipients, other components, and contaminants in vaccines, which may depend on the manufacturing quality. In order to more fully characterize long-term outcomes, continuous monitoring of adverse events after coronavirus disease 2019 (COVID-19) vaccinations will be necessary for years to come. Of particular importance is myocarditis, which can cause dilated cardiomyopathy.\(^3\) There have been reports from Russia and other countries about cardiovascular, blood clotting related, and other adverse events after vaccinations with the Gam-COVID-Vac vaccine\(^4,^5\); more references are in the review.\(^6\) The number of unreported cases is unknown. As for myocarditis, 3 cases of post-vaccinal (all after the Gam-COVID-Vac) were found in the Russian-language literature. Besides, 8 cases of myocarditis have been reported by the same authors after the COVID-19 infection and subsequent vaccination (7 cases after Gam-COVID-Vac).\(^7\) The second author of this letter worked in 2013 at a laboratory associated with the Gamaleya Institute, where the Gam-COVID-Vac (Sputnik V) vaccine has been developed, and noticed drawbacks: commercial and scientific teams working at the same premises, sparse equipment, readiness to use unverified statistics (Figure 1). The drawbacks were reported to the administration of the Institution and to the Health Ministry.\(^8\) Nevertheless, the modified data with corresponding conclusions have been published.\(^9\) The documentation reliability remains questionable. Some official information is neither transparent nor trusted by a part of the population.\(^10\) In a survey, 12% of Russian doctors opined that vaccines produced in their country are of inferior quality.\(^11\) It would be interesting to perform a large-scale survey among people who first experienced COVID-19 infection and later the vaccination, asking a question, when the symptoms had been more severe. However, the results of such a survey may be biased because some individuals would respond to what they perceive as officially or unofficially advisable. Apparently, some scientific writers conform to the same principle: the rarity of reports on the side effects of COVID-19 vaccinations may be caused by local policies discouraging such reporting.\(^12\) This might be the cause of the retraction of certain articles.\(^2,^3\) Of note, reports on side effects after the use of renowned vaccines do not imply higher risks but indicate that they are better studied than those coming from less open societies. Children, young adults, and many other people can mount their own immunity to severe acute respiratory syndrome coronavirus 2 undergoing acceptably low risk. There is an opinion that it is unethical to impede access to natural immune responses.\(^14\) A systematic review demonstrated that natural immunity in patients recovering from COVID-19 is at least equivalent to the protection by vaccination of COVID-naive people, with the possibility of enhanced durability of protection by natural
immunity. Post-COVID syndrome cannot always be clearly differentiated from post-vaccination events. For this and other reasons, the “vaccination of COVID-recovered individuals should be subject to clinical equipoise and individual preference.” In the future, the increase in mortality from different causes might be ascribed to COVID-19, and subsequent mortality decrease—to “successful” anti-epidemic measures including vaccinations. Moreover, adverse effects of vaccinations may be misattributed to the COVID-19 infection. Certainly, vaccination-related risks should not be exaggerated. There are perspectives to eliminate some side effects of new vaccine technologies. The problems are the manufacturing quality and approval of vaccines without long-term safety data due to political ambitions and rivalry.

REFERENCES