Safety and efficacy of COVID-19 vaccines in people with neurological disorders

In people with neurological disorders, COVID-19 vaccine uptake is likely to be influenced by concerns over adverse effects and loss of efficacy related to the disease and/or its treatment. Emerging evidence, as exemplified by two recent publications, should help to provide some reassurance regarding the safety and efficacy of COVID-19 vaccination in this patient population.

COVID-19 vaccines are administered by intramuscular injection, and in individuals with neuromuscular disease, loss of muscle mass, combined with steroid treatment, could limit the immune response to the vaccine. However, a new study involving 14 patients with neuromuscular disorders shows that these individuals mounted a comparable antibody response to that observed in healthy control participants. Moreover, vaccination produced higher antibody levels than did SARS-CoV-2 infection in patients with these conditions.

The second study examined COVID-19 vaccine uptake and outcomes in 491 people with epilepsy, compared with 217 people with neuropsychiatric conditions and 273 healthy volunteers. The epilepsy group showed lower levels of vaccine uptake and higher levels of vaccine hesitancy than the other two groups. A small proportion (less than 10%) of patients with epilepsy who underwent vaccination reported an increase in seizure frequency afterwards. In some cases, however, this effect might have been attributable to withdrawal or reduction of antiseizure medication owing to fears over drug interactions with the vaccine.

Although both teams acknowledge the need for more research, their studies provide some encouraging indications regarding the safety and efficacy of COVID-19 vaccines in people with neurological disorders.