immunosuppression. Nevertheless, as with other vaccinations, the benefit of immune protection, most probably, outweighs the risk of relapse.

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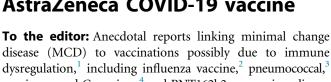
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## Relapse of minimal change disease following the AstraZeneca COVID-19 vaccine



disease (MCD) to vaccinations possibly due to immune dysregulation, including influenza vaccine, pneumococcal, meningococcal C vaccines, and BNT162b2 coronavirus disease 2019 (COVID-19) vaccine (Pfizer-BioNTech), have been published. We report 2 cases of biopsy-proven MCD relapsing within 2 days of receiving an AstraZeneca COVID-19 vaccine.

A 30-year-old man had received 1 g of rituximab in August 2020, having experienced annual relapses on tacrolimus. His prednisolone had been weaned to 1 mg/day by January and discontinued altogether by February 2021. Two days after his COVID-19 vaccine, he developed a headache and frothy urine. Urine protein-to-creatinine ratio 1 week later was 213 mg/mmol; albumin was preserved at 47 g/l; creatinine was stable at 82 μmol/l. At that time, lymphocyte subsets showed complete B-cell depletion; CD19 was 0.00. He did not seek medical attention until 2 months after receiving the vaccine when his urine protein-to-creatinine ratio was 142 mg/mmol. Repeat lymphocyte subsets then revealed B-cell return; CD19 was 0.06. Complete remission was achieved with 10 days of starting prednisolone 20 mg daily.

Å 40-year-old woman was maintained on prednisolone 5 mg daily and tacrolimus (Adoport); trough level was 4.6  $\mu$ g/l before vaccination. One day after receiving her first COVID-19 vaccine, she developed a headache, frothy urine, and ankle swelling. After 1 week, her general practitioner recorded 3+dipstick proteinuria. Unfortunately, no laboratory samples were sent. Prednisolone was increased to 30 mg daily, and

complete remission was achieved within 2 weeks. Creatinine was unchanged at 105  $\mu$ mol/l.

The association with various vaccines has been described, occurring between 4 days to several weeks later. 1,5,6,7 The timing of COVID-19 vaccination and the very early development of relapse of MCD in our cases raises questions as to the mechanisms involved. At 2 days after vaccination, one would assume the vaccine triggered a more generalized cytokine-mediated response. Others have postulated that symptoms after 4 days represent a rapid T cell–mediated response to viral mRNA. 2,5,6

We administered the second dose of a different COVID vaccine, and neither patient suffered an adverse effect. However, both patients were taking 15 mg prednisolone daily at the time. This may prove a useful strategy in similar cases.

We await further reports to evaluate the true incidence.

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## Post-vaccinal minimal change disease



**To the editor:** Previous reports have described the onset of minimal change disease after the administration of certain vaccines.<sup>1</sup>

Recently a 61-year-old woman was admitted to our hospital 8 days after her first coronavirus disease 2019 (COVID-19) vaccination (BioNTech/Pfizer SARS-CoV-2 COMIRNATY) because of edema and weight gain (6 kg). Medical