

3. Disclosure of interests

The authors report no disclosures relevant to the manuscript.

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Guillain-Barré syndrome following first injection of ChAdOx1 nCoV-19 vaccine: First report



A 72-year-old man with a medical history of diabetes mellitus consulted his general practitioner for a 5-day history of generalized body aches, distal upper and lower limb paresthesia, generalized malaise, dysarthria, dysphagia and difficulty walking. In the previous weeks, he did not present fever, signs of upper respiratory tract infection nor gastrointestinal symptoms. He had received his first dose of ChAdOx1 nCoV-19 vaccine (VaxZevria/Oxford-AstraZeneca) three weeks before. Neurological examination on day 6 revealed bilateral peripheral facial palsy and global muscle weakness. Motor nerve conduction study strength evaluation was 4/5 in the arms, 4/5 in hip flexors, and 3/5 in distal lower limb muscles. Deep tendon reflexes and vibration perception were abolished in the lower limbs. His sensation to light touch was intact but decreased to pinprick bilaterally in the lower limbs up to the hips. Cerebrospinal fluid analysis showed albuminocytologic dissociation (protein 0.62 g/L and normal cell count). Intravenous immunoglobulin treatment (0.4 g/kg per day for 5 days) was initiated in the hypothesis of Guillain-Barre syndrome (GBS).

Electrodiagnostic tests nine days after neurological symptoms onset showed a demyelinating pattern (motor conduction block, increase distal CMAP duration, reduction of motor conduction velocity, motor distal latency prolongation and prolongation of F waves) confirming GBS in accordance with current criteria (Table 1) [1]. On needle examination, rest activity with fibrillations was observed in distal lower limb muscles, and decreased motor unit recruitment during contraction was recorded in both tibialis anterior. IgM anti-GM3 anti-gangliosides antibodies were found in the serum. Biological tests were not in favor of a recent infection with *Campylobacter jejuni*, *Mycoplasma pneumoniae*, *Salmonella enterica*, CMV, EBV, HSV1 & 2, VZV, Influenza virus A & B, HIV and hepatitis E. This possible complication of ChAdOx1 nCoV-19 vaccine was notified to the French pharmacovigilance system. At day 28, while neurological symptoms were stable, the patient presented a sudden respiratory distress due to aspiration pneumonia leading to a transfer to the intensive care unit, where he is currently receiving care.