

### Sars-cov-2-vaccine-inactivated

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#### Encephalopathy: case report

A 37-year-old man developed encephalopathy following COVID-19 immunisation with SARS-COV-2-vaccine-inactivated.

The man presented to the emergency department with decreased level of consciousness. He had received first dose of SARS-COV-2-vaccine-inactivated [COVIran barekat; *route and dosage not stated*] vaccine and one day following the first dose of vaccine, he developed photophobia, hallucinations and aphasia loss of consciousness followed by abnormal movements of his upper and lower limbs and fever. His initial examination showed body temperature 38.9°C, BP 110/90 mmHg, heart rate 98 beats/min, respiratory rate 22 breaths/min and 95% oxygen saturation in room air. A random blood glucose was 190 mg/dL and both pupils were responding to light and medium in size. Head and neck examination revealed neck stiffness and pulmonary auscultation revealed fine basilar crackles in his left lower lung. No response was noted upon neurological examination and he had episodic jerky movement of the body with no focal neurological deficit. A high-resolution computerised tomogram of lung revealed infiltration in the left lower lobe. He underwent lumbar puncture and opening pressure of 14cmH<sub>2</sub>O was noted. His CSF analysis revealed the number of WBC, no RBC and protein level 39 mg/dL. Owing to possibility of herpes encephalitis, an empirical treatment with aciclovir was started and he was shifted to the ICU. His blood, CSF, and urine culture showed negative results and laboratory testing revealed gradual increase in muscle enzymes. Thus, he started receiving aggressive hydration therapy and urinary alkalization to prevent renal failure. His electroencephalogram normal electrical activity in the brain and the brain MRI was also found to be normal. Midazolam was given for jerky movements. Owing to normal brain MRI and negative result for herpes simplex, acyclovir was stopped.

The man treated with supportive care that led to marked improvement in his condition and consciousness. Eventually, he was discharged from hospital in normal condition with complete recovery. It was concluded that he had encephalopathy secondary to SARS-COV-2-vaccine-inactivated.