

Ad26.cov2-s

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**Rhabdomyolysis: case report**

A 19-year-old man developed rhabdomyolysis following Ad26.cov2-s vaccination against coronavirus disease (COVID-19).

The man presented to the hospital for participation in a clinical trial (unrelated to the COVID-19 vaccination). He had received IM Ad26.cov2-s vaccination [*dosage not stated*] into his left upper arm, 2 days before his clinical trial visit. A day after vaccination, he developed light muscle soreness (numeric rating scale of pain, NRS 3). Around noon, his body temperature increased.

The man took paracetamol [acetaminophen] and his fever decreased. In the afternoon, there was worsening of pain and immobility, especially in his elbows, back, wrists and shoulders (NRS 7). He took another dose of paracetamol, as the pain hindered his sleep during the night. On day 2 after vaccination, he reported for participation in a clinical trial. He developed muscle weakness and whole-body pain (NRS 10), which was aggravated at rest and alleviated when in motion. His urine was reddish-brown and it was strongly positive for blood in the dipstick test. Urinary sediment test showed weakly positive for red blood cells and urinary drug test was negative. Laboratory investigations showed a creatine kinase (CK) level of 15 638 U/L, serum creatinine of 1.06 mg/dL, lactate dehydrogenase (LDH) level of 428U/L and elevated liver enzymes. The study medication was not infused due to abnormality in the clinical and laboratory tests. IV volume resuscitation was commenced to avoid myoglobin precipitation and tubule obstruction causing acute kidney failure. He was also advised to increased daily fluid intake to 4 liter per day and monitor his urine output and weight. He was treated with IV paracetamol for pain relief. Additionally, he was told to rest and abstain from any physical activity. He went home after infusion therapy. On day 3 after vaccination, he returned for a follow-up, his pain improved to NRS 6-7 and he felt better. However, laboratory investigations showed increase in CK levels, elevated liver enzymes and a myoglobin level of 7146 U/L. His urine output was normal and IV fluid resuscitation was continued. On day 4 after vaccination, his CK levels continued to rise. Clinically, he continued to improve with NRS at 5, his urinary dipstick test returned to normal and he continued receiving IV fluids. On day 5 after vaccination, his CK levels decreased for the first time. His myalgia continued to improve (NRS 2). On day 15 after vaccination, he returned to the department in good health with normal CK levels. Rhabdomyolysis was attributed to Ad26.cov2-s vaccination.

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