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Autoimmune hepatitis developing after the ChAdOx1 nCoV-19 (Oxford-AstraZeneca) vaccine

To the Editor:

We read with interest the recent letter published by Bril *et al.* recently published in *Journal of Hepatology*.[1] The authors describe a possible case of COVID-19 vaccine-associated autoimmune hepatitis (AIH) in a 35-year-old woman 3 months post-partum. The patient presented with pruritis and jaundice 13 days after receiving a BNT162b2 mRNA (Pfizer-BioNTech) COVID-19 vaccine, which may be the first report of COVID-19 vaccine-associated liver injury. As vaccination programs are being rolled out globally,[2] many clinically significant side effects are starting to be identified, such as vaccine-induced immune thrombotic thrombocytopenia.[3]

Herein, we report the case of a 36-year-old Iraqi-born male physician who developed likely vaccine-induced AIH following COVID-19 vaccination. He has a past medical history of hypertension treated with olmesartan and laser eye surgery 2 weeks prior that required topical fluoroquinolone eye drops, 1 g of acetaminophen TDS, and 400 mg of ibuprofen TDS for 1 week total. He had no previous history of liver disease. Of note, he had his first dose of ChAdOx1 nCoV-19 vaccine (Oxford-AstraZeneca) 26 days prior to presentation with a subsequent mild febrile reaction requiring 1 g of acetaminophen TDS, and 400 mg of ibuprofen TDS for 3 days. He was referred to our emergency department after a finding of markedly abnormal liver function tests on routine blood tests and was asymptomatic at the time.

His physical examination was unremarkable. Blood tests were significant for the following: bilirubin 17 μmol/L, alanine aminotransferase (ALT) 1,774 U/L, aspartate aminotransferase (AST) 633 U/L, gamma glutamyltransferase 136 U/L, alkaline phosphatase 118 U/L, albumin 45 g/L, and international normalized ratio 1.1. Serology was negative for hepatitis A, B, C and E, Epstein-Barr virus, cytomegalovirus, herpes simplex virus, and HIV. Antinuclear antibody was positive at a titre of 1:160 in a speckled pattern. Immunoglobulins were normal with an IgG of 12.8 g/L (ref 7.0–16.5 g/L). Anti-liver-kidney microsomal, anti-smooth muscle, anti-mitochondrial antibodies, and anti-soluble liver antigen were normal. His caeruloplasmin, transferrin saturation, alpha-1-antitrypsin level and creatine kinase levels were also normal. Abdominal ultrasound revealed a normal-sized

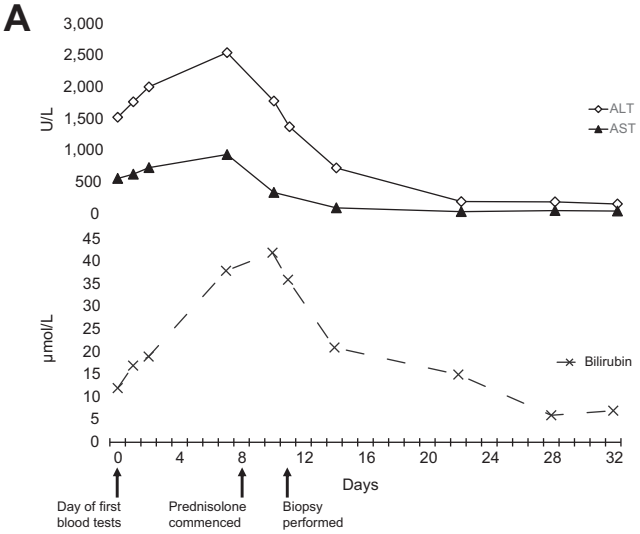

Fig. 1. Trends of plasma biochemistry over time.

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