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AMA-positive hepatitis induced by SARS-CoV-2 vaccine

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AMA-positive hepatitis induced by SARS-CoV-2 vaccine.

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KEYWORDS: Hepatitis. COVID-19. Vaccine.

Mr. Editor:

We present the case of a 56-year-old female with no relevant medical history that was referred to our centre for jaundice and choluria with no fever or abdominal pain after the administration of the first dose of the BNT162b2 vaccine against SARS-CoV-2.

Physical examination revealed only jaundice with no other findings. On admission, laboratory tests indicated: total bilirubin = 10,7 mg/dl; direct bilirubin = 8,4 mg/dl; alanine aminotransferase = 1665 U/l; aspartate aminotransferase = 1118 U/l; alkaline phosphatase = 383 U/l; gamma-glutamyltransferase = 410 U/l. Complete blood count and coagulation were normal. Serology for hepatotropic viruses (A, B, C and E) was negative. Cytomegalovirus, Epstein–Barr virus, herpes simplex virus 1 and 2, human immunodeficiency virus and parvovirus B19 serologies were negative for acute infection. Immunoglobulin levels were normal. Antimitochondrial antibodies were positive 1:640. Antinuclear, anti-smooth muscle and anti-LKM antibodies were negative. Abdominal ultrasonography and computed tomography were normal. There was no use of alcohol, drugs or herbal products. The patient had received the first dose of the Pfizer-BioNTech BNT162b2 vaccine against SARS-CoV-2 10 days before admission.

She remained clinically stable, with progressive biochemical improvement with no specific treatment, presenting a complete normalization of liver biochemistry at 6 months. She was diagnosed with BNT162b2 vaccine-induced toxic hepatitis, highly likely according to CIOMS/RUCAM scale.

DISCUSSION:

Since Brill F. et al. first described a case of hepatitis suspected of being induced by a SARS-CoV-2 vaccine, other authors have reported similar observations. (1-5) This case has the singularity of not having needed steroid treatment, as it had a spontaneous improvement. The increasing number of reported cases related to mRNA vaccines seems to support the hypothesis of a causal implication. In addition, the onset of autoimmune hepatitis has also been reported in the context of SARS-CoV-2 infection. (6)

In the authors' opinion, the occurrence of these uncommon adverse events associated with vaccinations underlines the need for the immunization of the general population in order to protect those patients that, due to adverse events or other conditioning factors, cannot receive vaccines against SARS-CoV-2.

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