## Paracetamol/tozinameran

## Various toxicities: case report

A 29-year-old woman developed pain at injection site, headache, general weakness, chills, fever, muscle pain, joint pain, hyperaesthesia, lymphadenopathy and pancreatic injury following vaccination with tozinameran while breastfeeding. She also exhibited lack of efficacy following treatment with paracetamol for abdominal pain due to pancreatic injury while breastfeeding [not all routes, dosages and outcomes stated; not all time to reaction onsets clearly stated].

The woman, who was a breastfeeding mother, was administered the first dose of tozinameran [Comirnaty; Pfizer BioNTech COVID-19 mRNA vaccine] injection on 8 January 2021. A few minutes after vaccination, she reported severe pain at the injection site, radiating to her left hand and neck. Twelve hours after the vaccination, she developed headache, general weakness, chills and muscle pain, which lasted for about 3 hours. Twenty hours after the vaccination, she woke up in the night due to severe abdominal pain.

The woman took oral paracetamol  $2 \times 500$  mg. Despite paracetamol therapy, her abdominal pain level increased over the next hours and started radiating to the spine. She developed fever. She presented to the hospital for further evaluation. Laboratory investigations were performed the next day after vaccination. Biochemical analysis showed significantly increased CRP and urine amylase. Abdominal ultrasonography revealed hyperechoic lesion in the right lobe of the liver [aetiology not stated], intrahepatic bile ducts not dilated, gallbladder not enlarged with normal wall, pancrease clearly visible in the head and body area not enlarged, homogeneous, without calcification, pancreatic tail obscured by intestinal gases difficult to assess, unexpanded spleen and kidneys of normal and comparable size, without signs of stagnation and calcified deposits. MRI of the abdomen demonstrated no significant changes, indicating mild pancreatic injury. In the hospital, she received IV paracetamol 1g. She was discharged home on her demand, despite indications for further hospital treatment. She was recommended strict fluid only diet, gastro-resistant capsules of oral pancreatic enzyme 10000 units three times daily and oral pantoprazole 40mg twice daily. Two days later, biochemical parameters revealed a significant decrease in CRP and urine amylase along with slightly elevated total bilirubin. Eight days later, a repeat analysis demonstrated normal CRP and urine amylase values and slightly increased total and direct bilirubin. As she was an actively working physician, the risk of serious complications after infection with SARS-CoV-2 was considered to outweigh the risk of potential mild pancreatic injury. Therefore, she received a second dose of tozinameran on 5 March 2021. Following the second dose, no severe reaction was observed. She experienced pain at the injection site 2-3 hours after vaccination. Twelve hours after vaccination, she developed muscle and joint pains along with hyperaesthesia. Twenty-four hours after vaccination, she developed lymphadenopathy under the left armpit, with lymph nodes enlarged to about 2-3 cm. The lymph nodes were painful for approximately 4 days. The pain at injection site, headache, general weakness, chills, fever, muscle pain, joint pain, hyperaesthesia, lymphadenopathy and pancreatic injury were considered to be secondary to tozinameran.

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