

## mRNA-1273

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**Nephrotic syndrome secondary to minimal change disease: case report**

A 43-year-old man developed nephrotic syndrome secondary to minimal change disease secondary to mRNA-1273 vaccine.

The man presented with both bilateral lower extremities and scrotal oedema, 3 weeks after receiving first dose of mRNA-1273. He had no significant medical history. He reported that, he developed sudden-onset bilateral lower limb swelling, 7 days after receiving first dose of mRNA-1273 [Moderna COVID-19 vaccine; dosage and route not stated] vaccine. Following 10–14 days, he developed scrotal swelling and dyspnea. He denied taking any herbals or over the counter medications. His physical examination revealed significant bilateral lower limb pitting edema extending to above the knees, decreased air entry at lung bases and scrotal swelling. His laboratory investigations revealed BP 150/92mm Hg, serum creatinine 80 µmol/L, blood urea nitrogen 3.9 mmol/L and albumin 8 g/L. The test were suggestive of hypoalbuminaemia, hyperlipidaemia and proteinuria. Urinalysis showed 3+ protein and 2+ blood. He only had 4 RBC's per high power field on urine microscopy, while his 24h urine protein was 15g. Chest x-ray showed prominent vascular markings and mild bilateral pleural effusion. Abdominal ultrasound showed normal-sized kidneys with normal echogenicity and corticomedullary differentiation. Light microscopy showed 14 glomeruli, with mild mesangial proliferation and expansion. However, none of the glomeruli had endocapillary proliferation, segmental glomerulosclerosis or crescents. Additionally, there was no tubular atrophy or interstitial fibrosis. Direct immunofluorescence showed 2+ mesangial deposition of immunoglobulin A (IgA), trace immunoglobulin G (IgG) and 1+ C3. Thus, renal biopsy showed minimal change disease with IgA nephropathy which was considered to be secondary to mRNA-1273 vaccine. The nephrotic syndrome was attributed to MCD.

The man was treated with prednisolone and furosemide. Thereafter, his serum albumin levels doubled, scrotal oedema resolved and proteinuria decreased within one week of treatment. He was advised to continue prednisolone.

Thappy S, et al. Minimal change disease following the Moderna COVID-19 vaccine: first case report. *BMC Nephrology* 22: 376, No. 1, 11 Nov 2021. Available from: URL: <http://doi.org/10.1186/s12882-021-02583-9> 803618499

» **Editorial comment:** "Details of this case report have previously been published and processed for Adis PV [see Reactions 1882 p317; 803610883]."