Etanercept

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Anti-glomerular basement membrane disease : case report

A 55-year-old man developed anti-glomerular basement membrane (anti-GBM) disease during treatment with etanercept for psoriatic arthropathy.

The non-smoker man who had psoriatic arthropathy presented with a 3-week history of sudden-onset painless macroscopic haematuria. He was referred by his general practitioner. In 2017, he was diagnosed with psoriatic arthropathy and had been receiving weekly etanercept injections for 12 months [*route and dosage not stated*]. Following etanercept injections, the psoriatic arthritis was in remission. In the past, he received methotrexate for psoriatic arthritis. Except this, his medical history was unremarkable. Because of the deteriorated renal function, he was transferred to a tertiary renal centre. Upon physical examination, mild pitting oedema on both ankles, clear were noted. Urinalysis showed haematoproteinuria. A chest X-ray did not identify abnormal radiological signs. Contrast CT scan showed normal-sized kidneys without evidence of obstructive disease. The serum immunology panel results revealed a significantly elevated anti-GBM titre (370.1U) [*time to reaction onset not clearly stated*].

Subsequently, the man's treatment with etanercept was discontinued. He was empirically treated with pulsed IV methylprednisolone, oral cyclophosphamide and plasma exchange. A renal biopsy examination showed cellular crescents in 14 out of 28 glomeruli with the presence of moderate interstitial inflammation i.e. crescentic glomerulonephritis. After treatment initiation, a decrease in anti-GBM titres were noted, though serum creatinine levels continued to rise. On day 5 following the admission, he developed COVID-19. During the subsequent 11 days, his renal function further declined with hyperkalaemia. Hence, he received 2 sessions of haemodialysis. On day 16, he recovered clinically and received IV cyclophosphamide prior to home discharge. Following discharge, he was switched to oral cyclophosphamide. By this time, full tissue typing results became available, which showed the HLA-DRB1-15 allele, affirmed the presence of anti-GBM disease. At 5 months following discharge, his serum creatinine levels decreased by almost two-thirds from the admission levels. At that time, his anti-GBM antibody titres remained negative. Furthermore, his psoriatic arthritis remained in remission without any therapy.

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