Letters to the Editor

Infliximab in a patient with ankylosing spondylitis and secondary IgA nephropathy requiring haemodialysis

Sirs,

We describe the case report of a patient with ankylosing spondylitis (AS) treated with infliximab and secondary IgA nephropathy requiring haemodialysis.

A 46-year-old white man with a diagnosis of AS was admitted to our unit for a long-standing, poorly controlled inflammatory low back pain and alternating buttock pain since he was 21 years old. He was treated with NSAIDs and sulfasalazine without efficacy. He referred arterial hypertension and a diagnosis of IgA nephropathy with persistent proteinuria since the last 4 years (Fig. 1). At admission we found: BASDAI=4.8; BASFI=5; BASMI=6; ESR=84mm/1sth; CRP=21mg/l; creatininemia=2.4mg/dl; proteinuria=7g/day. X-ray examination showed cervical syndesmophytes from C4 to C7 and bilateral sacroiliitis (grade IV). A diagnosis of AS was confirmed and infliximab was given iv at 5 mg/kg (350 mg total dose) at 0, 2nd and 6th week and thereafter every 8 weeks. Before the second infusion, the patient experienced an impressive improvement in clinical (BASDAI=0.5; BASFI=1.8; BASMI=5) and laboratory (ESR=25mm/1sth; CRP=<5mg/l) measures and reached partial remission according to the Assessment in Spondyloarthritis international Society criteria. By the 37th week of treatment (before the 8th infusion of infliximab), while the patient experienced a complete and sustained remission of AS, renal function gradually worsened (creatininemia=3.4mg/dl; proteinuria=9.7g/day) and he had to start haemodialysis. Infliximab was tapered to 200 mg (2.8 mg/kg) every nine weeks. After about 24 months since the first infusion, no side effects have appeared, the patient is still in clinical remission (ESR=18mm/1sth; CRP=<5mg/l) undergoing haemodialysis 2-3 times a week and waiting for renal transplantation.

The relationship between AS and secondary IgA nephropathy is well known (1) and it seems to be the second cause of renal failure in AS after amyloidosis (2).

Infliximab was given because tumour necrosis factor alpha (TNF-α) seems to play a role not only in AS but also in IgA nephropathy (3). In fact, the levels of intrarenal TNF-α gene transcripts have been linked to the amount of proteinuria, the degree of glomerular sclerosis and the mesangial matrix expansion (3). Moreover, TNF-α released by the mesangial cells after IgA deposition activates renal tubular cells proliferation and cytokine synthesis (4).

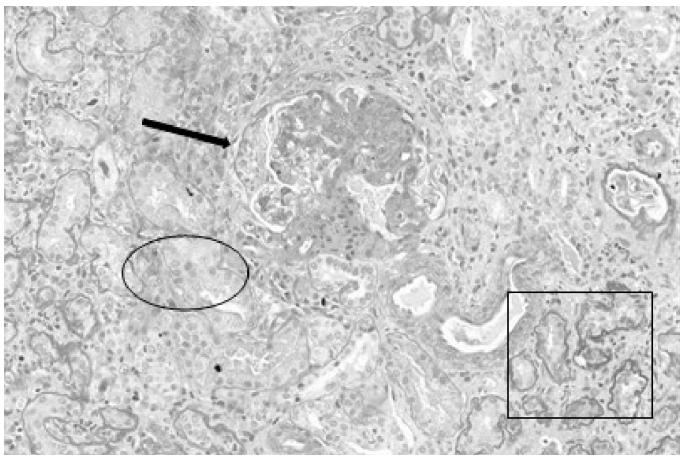

Fig. 1. The PAS-stained glomerulus has moderate mesangial hypercellularity, matrix expansion and overlying extracapillary hypercellularity with a fibrocellular crescent (arrow). At 12 o'clock there is a segmental scarring with an adhesion to Bowman's capsule. There is also significant tubular atrophy and few interstitial lymphocytes (square). Intracytoplasmic protein resorption droplets within the proximal tubular epithelial cells (circle).

In the present case, a man with AS with a secondary longstanding IgA nephropathy, infliximab led to a complete and sustained remission of rheumatologic manifestations, but renal impairment worsened.

Actually infliximab has been reported to be a possible cause of drug induced-membranous nephropathy (5) or renal vasculitis (6). Nevertheless, infliximab has proved to be useful also for kidney complications of adult-onset Still's disease (7). Moreover, in two cases of psoriatic arthritis and secondary IgA nephropathy a concomitant improvement of proteinuria was observed after infliximab therapy (8). In our case, the longstanding glomerular damage, already present before infliximab administration, could be too advanced to ameliorate with the anti-TNF-α agent. Moreover, the present case confirms a recent paper (9) on the lack of efficacy of infliximab on the evolution of IgA nephropathy, while well-going on AS symptoms. A further interesting aspect of this case is the use of infliximab during haemodialysis owing to the inconclusive information about dose adjustment and the possible increase in toxicity of the drug during haemodyalitic treatment. Our case confirms the observation that in RA with end stage renal failure infliximab can be well tolerated without showing any unusual side-effects and that the drug can maintain its efficacy also on haemodyalitic treatment (10).

The present observation widens the spectrum of use of infliximab and demonstrates that this anti-TNF-α agent is safe and efficacious in AS patients with end-stage renal failure secondary to IgA nephropathy requiring haemodialysis.

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