

ferent centres, it would be appropriate to attempt treatment with the maximum possible dose for a period and then to stop this expensive treatment if the expected response cannot be achieved.

*Conflict of interest statement.* None declared.

Nephrology Department, Aysegül Zumrutdal  
Adana Teaching and Research  
Center, Baskent University,  
Adana, Turkey  
Email: azumrutdal@yahoo.  
com

1. Breen CP, Macdougall IC. Improvement of erythropoietin-resistant anaemia after renal transplantation in patients with homozygous sickle-cell disease. *Nephrol Dial Transplant* 1998; 13: 2949–2952
2. Tomson CRV, Edmunds ME, Chambers K *et al.* Effect of recombinant human erythropoietin on erythropoiesis in homozygous sickle-cell anaemia and renal failure. *Nephrol Dial Transplant* 1992; 7: 817–821
3. Scettler V, Wieland E. A case report of darbepoetin treatment in a patient with sickle cell disease and chronic renal failure undergoing regular hemodialysis procedures that induce a dose dependent extension of blood transfusion intervals. *Ther Apher Dial* 2009; 13: 80–82
4. Dale GL, Alberio L. Is there a correlation between raised erythropoietin and thrombotic events in sickle cell anaemia? *Lancet* 1998; 352: 566–567

doi: 10.1093/ndtplus/sfq011

Advance Access publication 19 March 2010

### Marked improvement in renal function after rectal cancer resection in a case of anti-neutrophil cytoplasmic autoantibody-negative pauci-immune crescentic glomerulonephritis

Sir,

A small number of patients with pauci-immune crescentic glomerulonephritis (CrGN) lack circulating anti-neutrophil cytoplasmic autoantibodies (ANCA) [1], and the significance and pathogenesis of this disorder are not fully understood. A recent paper reported that ANCA-negative

pauci-immune CrGN might represent an independent disease entity, with distinctive features [2]. In contrast to the many reports describing a strong relationship between neoplasms and glomerulopathies, i.e. membranous nephropathy [3], there has been a limited number of reports documenting a possible relationship with rapidly progressive glomerulonephritis (RPGN). Serum ANCA levels also tend to be positive in such cases (Table 1).

A 59-year-old male was hospitalized because of rapid deterioration in renal function over the course of several weeks (Figure 1). Renal impairment was not evident 7 months earlier [serum creatinine (sCr), 78.8 µmol/L]. Although RPGN was indicated, neither myeloperoxidase (MPO)- nor proteinase 3 (PR3)-ANCA was detected in the serum by enzyme-linked immunosorbent assay. A non-specific assay using a commercial fluorescence detection kit also failed to detect serum ANCA. No other organ involvement was evident.

Unexpectedly, a 4-cm rectal tumour was found concurrently and pathologically diagnosed as a well-differentiated adenocarcinoma. Serum carcinoembryonic antigen (CEA), carbohydrate antigen 19-9 (CA19-9), cancer antigen 125 (CA125) and alpha-fetoprotein (AFP) were all negative. Because the renal function deteriorated even further (sCr, up to 289.4 µmol/L), low-dose oral steroid therapy, i.e. 20 mg/day (0.28 mg/kg/day) prednisolone, was initiated preoperatively based on the presumptive diagnosis of RPGN.

The principal finding of the biopsy, which was performed at Day 13 of the steroid therapy, was CrGN, with 70–80% of the glomeruli (total = 31 glomeruli) exhibiting fibrocellular or fibrous crescents. No immunoglobulins were detected in the glomeruli by immunofluorescent analysis.

Despite a temporary improvement in renal function after the low-dose prednisolone administration at the time of biopsy, the sCr level started to rise again (Figure 1). Steroid therapy was tapered off to reduce surgery-associated risks, followed by successful resection of the rectal cancer (pT3M0N1). The sCr level declined immediately after the surgery without further medication.

The relapse of progressive renal insufficiency prior to steroid discontinuation and its significant reversal immediately after the surgery suggest that tumour resection rather than the short-term low-dose oral steroid therapy was responsible for the improvement of renal function. Hence, the present

**Table 1.** Published cases of RPGN associated with non-renal solid malignancies

Age (years), gender	Organ	Serum ANCA	Citation
64, M	Stomach	Not mentioned	Intern Med 2008; 47: 1237
57, M	Stomach	pANCA(-)/cANCA(-) <sup>a</sup>	Gastric Cancer 2003; 6:267
60, F	Lung	pANCA(+)	Am J Kidney Dis 2000; 36: E24
64, M	Stomach	cANCA(+)	Int Urol Nephrol 1994; 26: 579
62, M	Lung	cANCA(+)	Clin Nephrol 1993; 40: 22
56, M	Prostate	cANCA(+)	Clin Nephrol 1993; 40: 22
77, M	Prostate	pANCA(+)	Clin Nephrol 1993; 40: 22
50, M	Bladder	cANCA(+)	Clin Nephrol 1993; 40: 22

pANCA, perinuclear anti-neutrophil cytoplasmic autoantibodies; cANCA, cytoplasmic anti-neutrophil cytoplasmic autoantibodies.

<sup>a</sup>The method for detection was not specifically described.

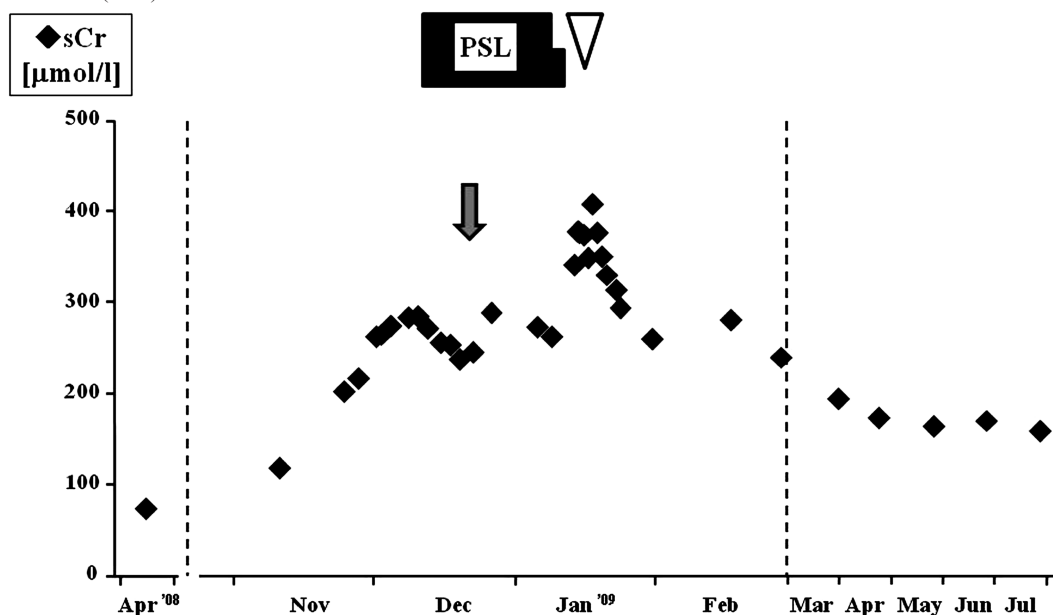


Fig. 1. Change in serum creatinine over time. sCr, serum creatinine concentration; PSL, prednisolone therapy. Arrow and triangle indicate when the renal biopsy and surgery were performed.

case suggests the possibility of ANCA-negative pauci-immune CrGN as a paraneoplastic syndrome.

Advance Access publication 6 April 2010

Conflict of interest statement. None declared.

**Bacterial infections following adjuvanted H1N1 vaccination in three renal transplant recipients**

<sup>1</sup>Division of Nephrology, Department of Medicine, Jichi Medical University, Tochigi, Japan

Shin-ichi Takeda<sup>1</sup>  
Yasuhiro Ando<sup>1</sup>  
Katsuhiro Nagata<sup>2</sup>  
Joichi Usui<sup>3</sup>  
Eiji Kusano<sup>1</sup>

<sup>2</sup>Department of Internal Medicine, Ibaraki Prefectural Central Hospital, Ibaraki, Japan

<sup>3</sup>Pathophysiology of Renal Diseases, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Ibaraki, Japan  
Email: nephando@jichi.ac.jp

Dear Sir,

The current seasonal trivalent influenza vaccine is not effective against the influenza A(H1N1)v virus, and a new monovalent vaccine against A(H1N1)v was developed and fast-track licenced [1]. We report three renal transplant patients recently admitted with a serious bacterial infectious disease following adjuvanted A(H1N1)v vaccination.

Case 1: A 63-year-old male renal transplant (March 2003) recipient presented with subfebrile temperature of 37.9°C, cough and chest pain. Seven days before, he had been vaccinated against H1N1 by his general practitioner. For immunosuppression, cyclosporine A and prednisolone were taken. Chest X-ray showed a pneumonic infiltration in the right lower lung. Bronchoscopy was performed, and *Chlamydia pneumoniae* was cultured.

Case 2: A 46-year-old truck driver with a well-functioning renal transplant for 14 years experienced fever and malaise following H1N1 vaccination. He was commenced on sultamicillin for cystitis with a positive urine culture of enterococci. His immunosuppression was methylprednisolone and cyclosporin A. Since urine output declined, the patient presented to the emergency department, and intravenous ceftriaxone was begun.

Case 3: A 66-year-old renal transplant (March 2007) patient had received a H1N1 vaccination 1 week before developing cough, malaise and running nose. He pre-

1. Savige J, Davies D, Falk RJ *et al.* Antineutrophil cytoplasmic antibodies and associated diseases: a review of the clinical and laboratory features. *Kidney Int* 2000; 57: 846–862
2. Chen M, Yu F, Wang SX *et al.* Antineutrophil cytoplasmic autoantibody-negative pauci-immune crescentic glomerulonephritis. *J Am Soc Nephrol* 2007; 18: 599–605
3. Lefaucheur C, Stengel B, Nochy D *et al.* Membranous nephropathy and cancer: epidemiologic evidence and determinants of high-risk cancer association. *Kidney Int* 2006; 70: 1510–1517

doi: 10.1093/ndtplus/sfq022