Association of ANCA-positive vasculitis with thyroid disease

Sir,
In the December 2007 issue of this journal, Lionaki et al. [1] reported a case control study in which they found that thyroid disease was associated with ANCA small vessel disease, especially among women, and was most frequently associated with MPO-ANCA. They did not find an association with anti-thyroid drugs as suspected in several previous papers. The authors state as a limitation of the study that they cannot provide the specific diagnosis and detailed clinical history of thyroid disease in these patients. We are currently treating a 58-year-old female patient with pauci-immune rapidly progressive glomerulonephritis due to MPO-ANCA vasculitis. She presented with acute renal failure (oedematous state, creatinine 3.5 mg/dl) and severe anaemia (haemoglobin 6 g/dl), having been diagnosed with autoimmune hypothyroidism with Anti-TPO and TSH receptor blocking antibodies 2 months before. She had received thyroid hormones and also allopurinol, which has been reported in association with p-ANCA vasculitis [2]. After the diagnosis of RPGN had been established by a percutaneous kidney biopsy, treatment with intravenous cyclophosphamide and hydrocortisone was initiated. The patient required three sessions of haemodialysis with ultrafiltration due to pulmonary oedema; the first session was complicated by a tonic–clonic seizure warranting admission to the intensive care unit for one night. Currently the clinical situation is stable with a maintenance dose of 100 mg cyclophosphamide/day, creatinine levels ranging ~2.5 mg/dl and urine output sufficient with 125 mg torasemide and 100 mg spironolactone/day. Apart from the recently diagnosed autoimmune hypothyroidism, her past medical history included a mild restrictive lung disorder that had been diagnosed as a patchy lung fibrosis in a CT scan in 2003, but it did not cause severe problems in the following years and the patient had ‘almost forgotten about it’. Our case seems to support the findings of Lionaki et al. in that the patient was female, had MPO-ANCA vasculitis and previous thyroid disease but was not receiving anti-thyroid medication.

Conflict of interest statement. None declared.

doi: 10.1093/ndt/gfn030

Advance Access publication 10 March 2008

Reply

Sir,
We kindly thank you for the opportunity to comment on the letter by Rothe et al. presenting a case with ANCA small vessel vasculitis (ANCA-SVV) in the setting of autoimmune hypothyroidism [1]. Autoimmune thyroid disease is relatively common in the general population and in females particularly [2] while ANCA-SVV, a rare disease, is almost equally distributed among genders [3]. As we recently reported, a prior history of thyroid disease was 3.7 times more likely among patients with ANCA-SVV compared to controls and 5.6 times more frequent in women [4]. Accordingly, in the case described by Rothe and colleagues, the absence of any exposure to thioamides eliminates any chance of consideration of the established drug-induced scenario for the development of ANCA-SVV [5]. The patient received a diagnosis of autoimmune hypothyroidism with Anti-TPO and TSH receptor blocking 2 months before the diagnosis of ANCA-associated glomerulonephritis. However, the natural course of autoimmune thyroid disease varies substantially among patients with an asymptomatic or sub-clinical phase, often preceding the overt thyroid hormone depletion [6]. The patient described was also MPO-ANCA positive, as has been reported in the majority of patients with thyroid disease and ANCA-SVV [5]. ANCA-SVV was proven by kidney biopsy with no other expression of SVV in this particular episode, although the findings of pulmonary fibrosis might also represent chronic damage arising from manifestations of the ANCA-SVV in the lungs, which preceded the diagnosis of autoimmune thyroid disease, although the true onset of either disease may be difficult to determine.

This association between thyroid disease and ANCA-SVV, even in the absence of the use of anti-thyroid agents,