although the time course of modified Rodnan Skin Score change and previous worsening and responsiveness to MMF make this unlikely. In our opinion, the very rapid and sustained change speaks for an effect of CMV infection reprogramming the immune system.

Rheumatology key message

- Viral infections may have a disease-modifying effect similar to the effects of autologous stem cell reconstitution.

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An unusual cause of generalized oedema in systemic lupus erythematosus

Sir, It is unusual for protein-losing enteropathy (PLE) to be the initial presentation of SLE [1, 2]. Additionally, PLE followed by CNS vasculitis in SLE has been reported only once previously [2]. We report a case of a 13-year-old South Asian woman from Sri Lanka who presented with 3 years of generalized oedema due to PLE and then developed typical features of SLE complicated with neuropsychiatric lupus (NPSLE). There was dramatic improvement with immunosuppression.

This patient’s illness began in 2008 with periorbital oedema, which progressed within months to generalized oedema and ascites. She complained of infrequent episodes of watery diarrhoea and four motions per day on 3–4 days of the month. There was no passage of blood or mucus in stool or steatorrhea or abdominal pain. She had no frothuria, haematuria, oliguria or features of renal impairment. There were no features to suggest chronic liver disease or cardiac failure. Her diet was adequate in protein. There was no previous history suggestive of SLE or SS. On admission to our unit, the patient’s BMI was 16 kg/m2 (weight 27 kg, height 130 cm). Except for generalized oedema, her examination was unremarkable.

The patient had hypoproteinaemia (44 g/l) and hypoalbuminaemia (18 g/l). Additionally, there were hypoglobulinaemia, hypercholesterolaemia and high cancer antigen-125 (CA-125). ESR and CRP were 108 mm/h and 1.8 mg/dl, respectively. Persistent leucopenia and thrombocytopenia were present. ANAs were positive (titre 1:160), with speckled appearance. dsDNA, APLs and anti-Ro/La antibodies were negative. Hypocomplementaemia was detected (C3 = 44.9 mg/dl, C4 = 16.9 mg/dl). The only abnormality detected in stool analysis was a high leucocyte count with >100/mm3. However, urine analysis and 24-h urinary protein quantification were repeatedly normal. Creatinine clearance, liver ultrasonograph and transthoracic echocardiogram were normal. Transaminases, alkaline phosphatase, coagulation profile and thyroid function were within normal limits.

Oesophagogastroduodenoscopy, colonoscopy up to the distal ileum and biopsies were normal. A mini-laparotomy and full-thickness ileal biopsy were also normal. Investigations for tuberculosis (TB) were negative. Tc-labelled human serum albumin scintigraphy was not available in our hospital.

In April 2011 the patient developed typical photosensitive malar rash of SLE, confirmed by skin biopsy.

In May 2011, while on oral steroids and AZA, the patient developed right-sided hemiplegia with multiple infarcts of the brain on cranial MRI (Fig. 1). The cerebrospinal fluid contained elevated protein levels without pleocytosis and tested TB PCR negative. The diagnosis of SLE with PLE and NPSLE was made.
With the onset of NPSLE, treatment with i.v. methylprednisolone pulses was commenced. Cyclophosphamide pulse therapy was planned; however, the patient refused cyclophosphamide treatment on grounds of ovarian toxicity. Therefore daily oral prednisolone and MMF was commenced with dramatic clinical and biochemical improvement. Over 3 weeks the patient gained normal limb power and had no residual neurological deficit. The diarrhoea disappeared and the patient gradually gained weight with normalization of albumin levels. SLEDAI was reduced from 15 to 2 at the end of the third month, demonstrating the effectiveness of treatment.

SLE rarely presents as PLE, which is more common in Asian patients [1, 2]. The exact pathogenesis of this condition is yet unknown. Multiple mechanisms such as mucosal ulceration, vasculitis, increased capillary permeability and intestinal lymphangiectasia have been postulated [3]. In previous case series on clinical features of lupus patients with PLE, diarrhoea and ascites were present in 46 and 48%, respectively [1]. Hypoalbuminaemia, hypoglobulinaemia, hypercholesterolaemia and normal endoscopic findings were observed in this patient and others [1, 3, 4]. In our resource-poor setting, Tc-labelled human serum albumin scintigraphy could not be performed, but protein leakage from the gastrointestinal tract was suggested by persistent diarrhoea and hypoalbuminaemia without another attributable cause.

This is the second report of CNS vasculitis following the occurrence of PLE in SLE [2]. A positive speckled pattern ANA, negative anti-dsDNA, high CA-125 and good response to immunosuppression were common features in both these cases, suggesting a potential subgroup of SLE [2]. Steroids, cyclophosphamide or AZA have been successfully used in treating PLE in SLE [1, 2, 5, 6]. However, as our patient refused cyclophosphamide, MMF was chosen as an alternative [7–10].

In conclusion, this case highlights difficulties in diagnosing this rare presentation of SLE in a resource-poor setting. It emphasizes the need to consider SLE in the differential of patients presenting with diarrhoea, generalized oedema and ascites. In addition, it highlights the need for observing these patients for subsequent CNS involvement.

**Rheumatology key message**
- SLE must be considered in PLE, which can lead to neuropsychiatric lupus.

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**Fig. 1** MRI of the patient’s brain demonstrating multiple infarctions.

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Comment on: Tocilizumab treatment in a patient suffering from rheumatoid arthritis and concomitant chronic hepatitis C infection

Sir, We read with great interest the article by Dragonas et al. [1] regarding the safety and efficacy of tocilizumab therapy in a patient with RA and chronic HCV infection. Monthly examinations over a 12-month period of tocilizumab therapy indicated that the patient’s liver function remained normal and viral load was stable. In addition, the patient’s RA improved substantially. Accordingly, these authors have concluded that although close monitoring of liver function and HCV-RNA levels is warranted, tocilizumab might be utilized in RA patients with HCV infection. However, we recently encountered a case of HCV reactivation in an asymptomatic carrier who was receiving tocilizumab therapy for RA, which occurred within the first 12 months of this therapy. To the best of our knowledge, this is the first case in the literature showing the risk of HCV reactivation during tocilizumab therapy.

In March 2009, a 65-year-old woman visited our outpatient clinic because of severe pain in multiple small joints. She met the 1987 ACR criteria for RA diagnosis. The patient was positive for RF and anti-CCP antibody. DAS for 28 joints based on the ESR (DAS28-ESR) was high (5.3) and Steinbrocker stage was III. Real-time RT-PCR assay (quantifiable range $15 \times 10^6 \text{IU/ml}$) revealed a high level of serum HCV-RNA ($1 \times 10^6 \text{IU/ml}$), and the HCV genotype was 1b. The patient carried a polymorphism within the $IL28B$ gene that confers resistance to Peg-IFN and ribavirin combination therapy for HCV infection [2]. Liver function tests were normal. Abdominal ultrasonography revealed no evidence of fibrosis or cirrhosis. The route of transmission was unknown.

We started treatment with salazosulphapyridine (1 g/day), and then replaced it with tacrolimus (1 mg/day) (Fig. 1). In November 2009, etanercept monotherapy (25 mg twice a week) was initiated because the patient’s RA had deteriorated (DAS28-ESR = 6.1). Six months later, there were sudden sharp increases in serum levels of alanine aminotransferase (ALT) and aspartate aminotransferase (AST) (268 and 201 IU/l, respectively). Although these abnormalities were preceded by a slight and transient increase in serum HCV-RNA ($2.5 \times 10^6 \text{IU/ml}$), the causal relationship was unclear. Etanercept was temporarily

**Fig. 1** Serum levels of HCV-RNA and hepatic enzymes in a patient receiving anti-RA agents.

During tocilizumab therapy, the patient’s serum HCV-RNA level was markedly elevated, followed by a sharp increase in hepatic enzymes. TCZ: tocilizumab; ETN: etanercept; TAC: tacrolimus; SSZ: salazosulphapyridine; UDCA: ursodeoxycholic acid; SNMC: stronger neo-minophagen C.