Physical examination of the patient (81 kg/174 cm; RR: 120/80) showed normal heart size on percussion, an accentuated second heart sound, clear lung auscultation, mild liver enlargement and extensive oedema of the lower limbs.

Except for hyperlipidaemia and mildly increased eosinophils (6%, normal <5%), laboratory findings were normal. X-rays showed slight heart enlargement with a prominent pulmonary artery, scintigraphy no evidence for pulmonary embolism, and spirometry hyperventilation and acidosis on exercise. ECG revealed abnormal right axis, P pulmonale and right ventricular hypertrophy. On catherization, a dilated pulmonary artery, widened main branches and pulmonary artery pressures of 80 mmHg were found.

PPH due to aminorex was diagnosed. A control in 1970 showed that pulmonary pressure had decreased to 65 mmHg. The ECG axis had returned to normal left, the spirometry had improved and eosinophils normalized (2%).

In 1984, seropositive RA developed. Oral low-dose MTX was introduced (7.5 mg/week) in 1989. In September 1991 (total dose 810 mg of MTX), acute mild. Abnormal laboratory findings: ESR 45 mm/RF 114 U.

MTX was introduced (7.5 mg) normalized (2%). appetite suppressants may be used more frequently in left, the spirometry had improved and eosinophils of drug-induced pulmonary problems. Moreover, since 1970 showed that pulmonary pressure had decreased MTX pneumonitis. We therefore recommend using MTX particularly carefully in patients with a history to 65 mmHg, the ECG axis had returned to normal MTX pneumonitis. First, in this patient, elevated eosinophils occurred only with the pulmonary disorders and decreased along with improvement after discontinuation of the causal medication. Thus, this patient’s history and the pathogenic similarities of both disorders may indicate that drug-induced PPH may constitute a risk factor for MTX pneumonitis. We therefore recommend using MTX particularly carefully in patients with a history of drug-induced pulmonary problems. Moreover, since appetite suppressants may be used more frequently in the future, one should be aware of the potential threats in the context of MTX therapy of RA.

B. F. Leeb, C. Scheinecker, H. Schweitzer, J. S. Smolen
2nd Department of Medicine, Rheumatic Disease Centre, Laizn Hospital, Wolkersbergenstrasse 1, A-1130 Vienna, Austria
Accepted 1 December 1997

9. Rubin LJ. Pathology and pathophysiology of primary pulmonary hypertension. Am J Cardiol 1995;75:51A–4A.

Trigeminal Sensory Neuropathy in Systemic Sclerosis

Sin—The occurrence of a trigeminal sensory neuropathy (TSN) in association with connective tissue disease (CTD) is rare, but has been generally accepted as a feature of these diseases [1]. Most cases of isolated
TSN have been reported in diffuse or limited systemic sclerosis (SSc), mixed connective tissue disease and in the undifferentiated connective diseases (UD-CTD).

We report a case where the diagnosis of TSN and UD-CTD was made concurrently with the development of a diffuse SSc 4 months later. The pathogenesis of this association is discussed and the anatomical location of the lesion causing TSN is described with MRI.

A 62-yr-old man was admitted to our hospital with right side facial numbness. The patient had been in excellent health until 2 months earlier, when he began to have gradual right paraesthesia in the maxillary, mandibular and ophthalmic divisions of the trigeminal nerve, morning stiffness and finger swelling. Six weeks before admission, a CT scan of the brain was normal, and a physician began to treat him with carbamazepine with no clinical improvement. Physical examination revealed sclerodactyly and evidence of sensory loss in the right trigeminal area, with impairment of taste and diminished corneal reflex. The patient denied the presence of Raynaud’s phenomenon and oesophageal dysphagia. The heart and lungs were normal, and there was no lymphadenopathy or enlargement of the spleen or liver. Laboratory analyses on admission, including blood count, ESR, electrolytes, liver and muscle enzymes, were normal. Rheumatoid factor and serological syphilis tests were negative. Antinuclear antibodies were positive (1/640, in a nucleolar pattern), and anti-Scl-70 (antitopoisomerase-I antibodies) were highly positive. Extractable nuclear antigen antibodies (anti-RNP, anti-SSA, anti-SSB, anti-Sm), anticentromere and anti-DNA antibodies were negative. Nailfold capillaroscopy disclosed important dilatation and capillary destruction. Cerebrospinal fluid analysis and chest X-ray were normal. In the lung function tests, reductions in FVC (65%), FEV1 (51%) and diffusion capacity (DLco) (53%) were found. Contrast-enhanced T1-weighted MRI brain scan showed enhancement and slight enlargement of the pre-ganglionic segment of the right fifth cranial nerve (Fig. 1). Abnormal R1 response was obtained unilaterally on the right side with blink reflex testing. Peripheral neuropathy was not found on nerve conduction studies. Treatment with steroids or NSAID was not administered and the patient was discharged with the same treatment provided previously (carbamazepine). Four months later, he presented with constitutional symptoms, fatigue and arthralgias. Clinical examination revealed widespread skin involvement, with loss of skin creases over the fingers, hands, thorax and abdomen. Pitting oedema was noted on the hands and ankles. The facial numbness had improved and a follow-up contrast-enhanced MRI brain scan showed a normal pre-ganglionic segment of the right fifth cranial nerve. The R1 response on the blink reflex was nearly normal. The patient was discharged to our SSc out-patient clinic on treatment with d-penicillamine.

The differential diagnosis of fifth cranial nerve dysfunction includes bone disease, tumours, infections, vascular abnormalities, and a variety of other disorders [2–4]. The connective tissue diseases most frequently associated with TSN are undifferentiated connective tissue disease (47%), mixed connective tissue disease (26%) and SSc (19%) [5].

TSN is the most common nerve disorder in scleroderma. Other cranial neuropathies have also been reported, including bulbar palsy and glossopharyngeal neuropathy [6]. It has been proposed that the neuropathy in scleroderma results from ischaemic lesions of the peripheral nerves through involvement of the vas nervorum [7]. Immunological mechanisms may also have a role in the pathogenesis of polyneuropathy in scleroderma patients [8]. One might assume from the above that autoimmune vascular injury due to heightened immune response to basement membrane antigens would be behind the dysfunction of the vas nervorum and peripheral nerves in patients with scleroderma [6]. Besides these immunological and vascular theories, we propose an alternative theory, taking into account our clinical and radiological findings. The trigeminal nerve is the largest of the cranial nerves and its pre-ganglionic segment, located between its emergence from the anterior aspect of the pons to its entrance through the porus trigeminus into Meckel’s cave, is commonly identified with MRI [9]. Förster
et al. [10] reported a patient with TSN and MCTD where MRI suggested a lesion in the cisternal part of the nerve including the Gasserian ganglion.

We speculate that fifth nerve neuropathy in the early stages of SSc (oedematous stage) could be interpreted as an entrapment neuropathy because of the inflammatory reaction with oedema, produced by an increase in the permeability of adjacent vascular structures and increases in extracellular fluid. These changes are reflected on MRI by abnormal contrast uptake and slight enlargement of the pre-ganglionic segment, which resolves with the resolution of oedema.

Department of Internal Medicine, 3rd Floor, and
*Magnetic Resonance Imaging Unit, Vall D’Hebron General Hospital, Barcelona, Spain
Accepted 1 December 1997
Correspondence to: A. Selva-O’Callaghan, C/Siracusa No. 12 Bis ‘A’, Barcelona 08012, Spain.


Association of Antiphospholipid Syndrome and Chronic Hepatitis C

Sir—The anticoagulant antibody (ACA) antiphospholipid syndrome is closely associated with arterial or venous thrombosis, recurrent fetal loss and thrombocytopenia [1]. ACA have been described in various pathological conditions, including autoimmune and systemic lupus erythematosus, infectious diseases or cancer. A group of patients developing the antiphospholipid syndrome who are healthy and harbour no other underlying medical condition are therefore classified as having primary, rather than secondary, antiphospholipid syndrome. Hepatitis C virus (HCV) infection has been shown to induce extrahepatic autoimmune manifestations [2]. In addition, it has been suggested recently that ACA could frequently be found in patients with HCV infection [3]. We report a possible association between antiphospholipid syndrome and HCV infection.

In December 1992, a 40-year-old man presented with thrombosis of the ilio-femoral vein. The subject’s past medical history included blood transfusion in 1985 and a 2-fold increase in alanine aminotransferase (ALT) serum level, known since 1990. He was treated with s.c. heparin during 3 months, followed by long-term oral anticoagulation with vitamin K antagonists. Despite this therapy, between 1992 and 1994, recurrent thrombotic events with multiple bilateral deep and superficial vein thromboses of the lower limbs occurred. Antiphospholipid syndrome was suspected because IgG antiphospholipid antibodies above 36 GPLU (normal <15 GPLU) were detected using ELISA (BMD, Paris, France) associated with IgG lupus anticoagulant (ELISA), weakly positive antibodies to β2-GPI (ELISA) and false-positive Bordet Wasermann reaction. Neither serum mixed cryoglobulinaemia nor other autoantibodies were demonstrated (ANA, anti-double-stranded DNA, anti-ENA, anti-smooth muscle antibodies, anti-mitochondrial antibodies). Diagnosis of HCV infection was based on standard serological tests and virus RNA detection by polymerase chain reaction (Amplicor®, Roche Diagnostic Systems, France). HCV genotype was 1a (Inno-Lipal®). Liver biopsy showed chronic active hepatitis with a Knodell’s activity index at 8.

In October 1994, the patient was treated s.c. with 3 MU of recombinant interferon (Interferon α 2a, Hoffman-La Roche, Basel, Switzerland) three times a week for 24 weeks. At the end of interferon-α therapy, ALT levels were normal and virus RNA was undetectable. A decrease in ACA level to 28 GPLU, then 13 GPLU, associated with a disappearance of the anti-β2-GPI antibodies and lupus anticoagulant was observed during interferon-α therapy (Fig. 1). In addition, thrombotic disease was considerably improved. Under oral anticoagulation, we could not observe clinically any subsequent recurrence of deep vein thrombosis and this was confirmed by the Doppler ultrasonography controls. During the 2 months following discontinuation of interferon-α therapy, the virological response remained complete and no thrombotic event occurred. Unfortunately, a relapse of viral hepatitis with a rise in ALT level and extensive deep vein thrombosis occurred simultaneously 3 months after the end of interferon treatment despite effective oral anticoagulation. HCV RNA became detectable again and an increased ACA level to 40 GPLU associated with positivity of antibodies to β2-GPI was observed (Fig. 1).

In a recent study, it has been suggested that HCV infection may facilitate the development of antiphospholipid antibodies and probably thrombotic disorders [3]. In our observation, antiphospholipid