by binding to a novel allosteric site within LFA-1 [5]. Another beneficial effect of statins may be the switch from Th1 to Th2 cytokines, as demonstrated for atorvastatin in a murine model [6]. Statins reduce CD40 expression in atheroma-associated cells in atherosclerotic lesions in situ in treated patients [7]. Fluvastatin has recently been shown to induce apoptosis in vitro in RA synoviocytes through a mitochondrial and caspase-3-dependent pathway and by inhibition of the geranylgeranyl pathway [8]. One may speculate that some of these previously proven mechanisms of action may be of relevance in the presented case.

Cholesterol crystalloids may appear as negatively birefringent, large, flat rectangular plates with notched corners, ranging from 8 to 100 μm, consisting of monohydrate cholesterol. These are thermodynamically stable and not easily cleared. This case lends support to the hypothesis that locoregional monohydrate cholesterol production or one of the aforementioned mechanisms (suppression of class II MHC or Th1–Th2 switch) play a pivotal role in the aetio-pathogenesis of cholesterol synovitis, as cholesterol synovitis can be inhibited by atorvastatin in humans.

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Unilateral polymyalgia rheumatica with contralateral sympathetic dystrophy syndrome. A case of asymmetrical involvement due to pre-existing peripheral palsy

Sir, We describe the case of a man with pre-existing peripheral palsy who developed polymyalgia rheumatica (PMR); he was spared arthritis in the affected limb but experienced reflex sympathetic dystrophy syndrome (rSDS) in the paretic arm.

A 72-year-old man was admitted to our hospital because of nocturnal pain in his right shoulder and the pelvic girdle, with long-lasting morning stiffness, mild fever and weight loss. The pain in his buttocks and thighs was so severe that it limited his ability to stand and walk. His knee reflex responses were symmetrically reduced, and he was admitted to the Neurological Department with suspected paraparesis. The shoulder pain was not taken into account because the patient reported a diagnosis of rotator cuff tendinitis that had been made some days before by another physician.

The patient’s history included left axilla irradiation performed 30 yrs ago because of a ‘lymphogranuloma’, which led to brachial plexus damage and peripheral palsy in the arm; the lymphoma did not relapse and the patient did not receive any other treatment.
The motor impairment in his left arm was nearly complete, although some degree of useless movement persisted. The sympathetic fibres were relatively spared, allowing the presence of sweat and vasomotor reflexes, and the arm retained some tactile, thermal and noxious sensitivity.

Neurological examination did not reveal any other gross abnormalities, and the administration of analgesics allowed the patient to stand and walk. He had mild fever (37.5°C), an erythrocyte sedimentation rate (ESR) of 120 mm/h, and mild, normochromic and normocytic anaemia. He was subsequently referred to our department because of suspected PMR.

Rheumatoid factor (RF), anti-nuclear antibodies (ANA) and anti-neutrophil cytoplasm antibodies (ANCA) were negative, and muscle enzymes were normal. The patient denied headache or visual abnormalities, and the results of a temporal biopsy were normal. A scan revealed increased Tc⁹⁹ uptake in the right but not the left shoulder (Fig. 1).

The prednisolone (25 mg/day) led to the prompt disappearance of the right shoulder and pelvic girdle pain, the normalization of body temperature and ESR (25 mm/h). Tapering was started after 1 month.

One month later, left hand was affected by a painful pitting swelling, accompanied by a glossy and bluish skin, continuous sweating and thermal disturbances. Radiology showed spotty atrophy and the Tc⁹⁹ scan, which had previously been symmetrical and normal at the hands, showed increased vascular flow and bone activity in the affected area. Rx pattern was consistent with the diagnosis of rSDS. Biphosphonate therapy with clodronate was started, and 1 month later led to improved symptoms and reduced oedema.

PMR is an inflammatory disease that variably involves the upper and lower girdle, but has a well-defined symmetry [1].

To the best of our knowledge, there is only one previously published report of a case of PMR leading to established central hemiparesis [2] with the sparing of the affected site.

In our case, the patient’s complaint and the scintigraphy results explain the unilateral involvement of the upper girdle. The presence of brachial palsy may have had a protective effect on the appearance of arthritis in the affected limb, but the altered neural control induced rSDS.

It has been reported that central [3] or peripheral denervation [4] can protect against rheumatoid artheritis (RA). Pre-existing denervation can avoid the emergence of arthritis and erosions in the paretic limbs and, when the neural defect occurs after established RA, it can also ameliorate synovitis [5], and even induce erosion recovery [6]; the more severe the neurological damage, the more pronounced the sparing effect.

**FIG. 1.** (A) Bone scintigraphy showing the main uptake in the right shoulder and (B) the Tc⁹⁹ scan of the hands showed increased vascular flow and bone activity of the affected area. From upper left to lower: increased vascular flow; blood pool; increased uptake at steady state; persistence of inflammation of right shoulder.
A number of previous reports [3, 4, 7] suggested that the lack of mobilization and/or reduced vascular supply in the denervated limb may explain this sparing effect, but it is currently believed that the functional or anatomical reduction in nervous fibres is the common, necessary and sufficient underlying reason.

The nervous system plays an active role in inflammation, which it can induce in experimental and human models (neurogenic inflammation) by producing and releasing neuropeptides. Neurogenic inflammation may amplify immune complex-dependent inflammation, and a number of observations suggest that the nervous system plays a role in generating and maintaining arthritis [8]. Various neuropeptides can control the milieu by interacting with the surrounding and circulating cells, regulating the activity of the immune system (and its dependent production of cytokines) as well as vascular tone [9].

rSds is a pathological condition due to hyperactivity of the autonomic nervous system; it is frequently triggered by noxious stimuli or interference with central nervous outflow (strokes, the use of anti-convulsants), and mechanisms of neurogenic switch are involved in its appearance [7]. There is only one previously published case of rSds complicating PMR [10].

Sympathetic fibres are characterized by low-grade activation, which is increased by activity in the primary afferent nociceptive nerves, and some conditions due to an abnormal increase in this activity (frequently triggered by noxious stimuli or CNS interference due to ischaemic or pharmacological insults) can lead to rSds.

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