satisfied with the efficacy of all three anti-TNF therapies. It remains to be seen if the patterns of use of the different anti-TNF therapies will change once the proposed organizational reforms have been implemented. In turn, further studies will be required to determine whether any such changes will positively or negatively influence patient choice, satisfaction and compliance with anti-TNF therapy.

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Severe keratopathy in paediatric Cogan’s syndrome

Sir, A 9-yr-old girl was referred to our institution on September 1998 with idiopathic bilateral interstitial keratitis (IK). She had a 4-yr history of recurrent acute bilateral episodes of redness and photophobia, occasionally treated with topical steroids. At the time of her initial examination symptoms remained unchanged. Ocular examination showed a visual acuity (VA) of 20/60 both eyes (OU). Slit lamp examination revealed mild ciliary injection, white stromal opacities surrounding stromal centripetal neo-vascularization in both corneas, and visual axis remained partially clear (Fig. 1A). The remaining ocular examination was normal. Extensive work up by her paediatrician and rheumatologist showed no systemic infection, including lues, collagen disease or systemic vasculitis, including aortitis. Her family history was unremarkable and corneal dystrophies were excluded. Ocular symptoms resolved after treatment with fluoromethalone drops (q4h) for 2 weeks. Four months after her first visit, she experienced sudden bilateral hearing loss without vertigo. The association of IK and hearing loss prompted the diagnosis of Cogan’s syndrome. Prednisolone (1mg/kg/day) provided immediate subjective improvement of deafness. Her otorhinolaryngologist diagnosed bilateral profound sensorineural hearing loss after normal magnetic resonance of the auditory pathway and auditory evoked potentials. Three months after steroid treatment, auditory acuity recovered to nearly normal levels in right ear, but only slightly in the left. Attempts to discontinue oral steroids precipitated hearing loss that reversed with increasing doses to previous levels. We, therefore, initiated oral immunosuppression, with methotrexate (2.5–7.5 mg/week) for 1 yr and tapered steroids for 4 months. Therapy was changed to low-dose oral ciclosporin (50–150 mg/day), due to elevated transaminases, for the following year with no further recurrences. She was last seen in January 2005 and had subsequently been off of systemic therapy for 4 yrs. The patient’s VA had deteriorated to 20/100 OU due to the progression of corneal stromal opacification into the visual axis (Figure 1B). She declined penetrating keratoplasty, preferring low vision aids instead.

Typical Cogan’s syndrome is a rare autoimmune systemic disease characterized by non-syphilitic IK and audiovestibular impairment in an interval of <2 yrs [1–3]. Cogan first described four patients with characteristic findings in 1945 [1]. Atypical Cogan’s syndrome can be diagnosed with associated typical IK and audiovestibular symptoms occurring with a delay of >2 yrs [2–5]. Our report describes a case of atypical Cogan’s syndrome in a child with severe IK.

Corneal involvement in childhood Cogan’s syndrome occurs less frequently than in adults [4]. Central corneal involvement in children has been briefly mentioned in one report lacking supportive images and follow-up [6]. In our patient, keratopathy initially caused a decrease in vision, however, the central visual axis remained partially clear. During six additional years of follow-up, her vision further deteriorated two more lines by clouding of the central cornea. Early corneal findings in Cogan’s syndrome begin with peripheral, subepithelial infiltrates that may or may not progress slowly to classic IK [7]. Advanced corneal compromise has been reported in Cogan’s syndrome in adults [8–10]. The progression to advanced keratopathy is not associated with inflammation and may take one to several years from the onset to develop. In general, clinical progression to severe keratopathy is related to the corneal vascularization although only slight decreases in vision occur prior to the involvement of the central cornea [8]. The clouding of the central cornea is associated with considerable loss of vision and requires penetrating keratoplasty [8–10]. Our patient had 4 yrs of visual symptoms before we first saw her and, after 6 yrs of follow-up, the final clinical appearance was the result of severe progression.

Although audiovestibular manifestations may occur within a few weeks of the ophthalmic symptoms [1, 2, 6], in some patients
this can happen several years after or before the onset and can delay the diagnosis and treatment [2, 3, 9]. The audiovestibular manifestation is dependent on steroid treatment within the first month of the symptoms [3], but hearing loss may progress to profound bilateral deafness if the patient has repeated attacks [3–5]. Our patient’s initial oculomotor symptoms occurred 4 yrs before her hearing loss. This was the clue leading to diagnosis and appropriate treatment with corticosteroids, for the acute episode, and immunomodulation to maintain the success. Although 37% of patients with atypical Cogan’s syndrome progress to bilateral deafness [2], despite systemic corticosteroids and immunomodulation, our patient’s auditory acuity remained stable after a 2-yr treatment with corticosteroids, methotrexate and ciclosporin.

In addition, systemic treatment did not modify the prognosis of the keratopathy due to her advanced initial presentation.

Severe keratopathy can be the end-stage of corneal compromise in Cogan’s syndrome and may present in childhood as the main manifestation. A multi-disciplinary approach is necessary to be successful at early diagnosis and treatment.

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Atorvastatin for chronic synovitis due to massive intra-articular cholesterol monohydrate deposition in long-standing rheumatoid arthritis

Sir, Crystal-induced arthritis is quite common in rheumatology, particularly negatively birefringent needles due to monosodium urate and positively birefringent rhomboids due to calcium pyrophosphate. Negatively birefringent plates with notched corners are due to cholesterol monohydrate but only rarely occur or are under-recognized; it is a challenge for clinicians to correctly diagnose these [1, 2]. Which therapy is to be considered once cholesterol plates have been diagnosed remains unclear from literature.

A 51-yr-old female with an unremarkable lipid profile presented with exacerbation of rheumatoid arthritis (RA) and a particularly painful synovitis of knee and shoulder. RA had been diagnosed 15 yrs earlier. Several disease-modifying antirheumatic drugs had previously been prescribed as monotherapy and as combination therapy (dual, but not triple); oral methotrexate (MTX with folic acid supplementation), sulphasalazine (SSZ) and hydroxychloroquine (HCQ), all without significant efficacy. Tolerance problems with MTX made her discontinue the MTX and continue SSZ monotherapy. Despite high disease activity, 28 joint count (DAS28) 5.1, she complied to SSZ for several years. Puncture of the right shoulder and left knee revealed a voluminous white colloidal fluid [1]. Micro-organisms were excluded. Polarization microscopy revealed cholesterol monohydrate plates. Treatment options aiming primarily at reducing total bulk of intra-articular cholesterol, and secondly at reducing DAS28, were considered; see Table 1. Failure on both end points was seen during 8 weeks of follow-up using weekly parenteral MTX 10 mg (without tolerance problems). Following intra-articular injection of 40 mg methylprednisolone acetate, a large voluminous increase of synovial fluid was produced, again loaded with cholesterol plates. It was only when atorvastatine 20 mg daily was started that the cholesterol bulk completely resolved; see Table 1. Possibly MTX in part, but particularly atorvastatine, should be held responsible for the resolution of the large bulk of intra-articular cholesterol.

Data from literature on treatment options of cholesterol crystal synovitis are lacking. Cases with cholesterol crystal deposition have only sporadically been reported in the literature [2]. If deposition occurs in rheumatoid diseases, then it occurs most frequently in structures with synovial lining and without concomitant hyperlipidaemia. General interest of immunologists/rheumatologists in statins has increased over the last years. Trial of Atorvastatin in RA (TARA) has drawn attention to the pivotal role statins may play in chronic rheumatoid inflammation [3]. [Interestingly, statins have next to anticholesterol, also immunomodulatory and anti-inflammatory properties.] They appear to act as direct repressors of class II major histocompatibility complex (MHC)-mediated T-cell activation while not affecting constitutive expression of class II MHC in dendritic cells and B-lymphocytes [4]. Statins selectively block β2 integrin and lymphocyte-function-associated antigen I (LFA-1)