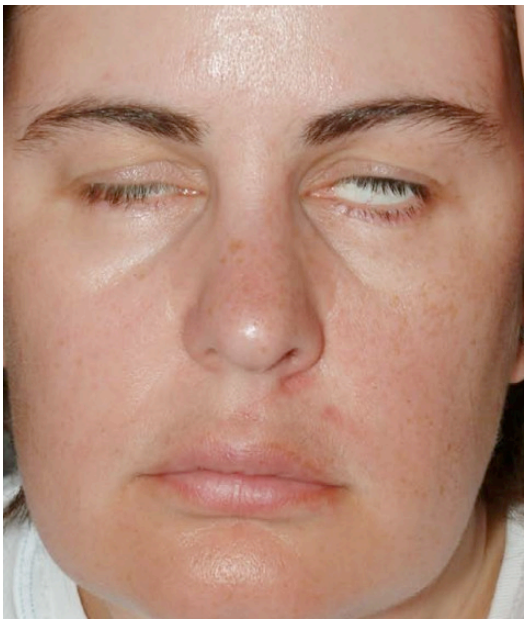
ED QUICK QUIZ
WHAT IS THE DIAGNOSIS?

BACKGROUND

38 year old female presents with a one-day history of left sided facial weakness. Two weeks earlier she was treated by her general practitioner with a course of oral amoxicillin for a sore throat. Examination showed an incomplete left LMN facial palsy.



Two days later she returned with paralysis now involving both sides of the face with an obvious Bells ocular palsy on the left. While she did give a history of 'pins and needles' on both hands and feet, and stiff shoulders, she denied any numbness over the sites. She was aware of altered taste sensation. Examination revealed bilateral complete lower motor neuron type of facial palsy. All other cranial nerves were intact and there was no evidence of sensory deficits elsewhere. Lower limb power was 4/5 across all muscle groups, while power in the upper limbs was normal. By the tenth day, she developed loss of ankle reflexes bilaterally. Paradoxically, at this time, the biceps, triceps and jaw reflexes were brisk.

QUESTIONS

1. What diagnoses should be considered?
2. What travel and “social” history should be undertaken?
3. What investigations should be performed?

ANSWERS & DISCUSSION

1. **Diagnoses**

   MS - in view the age and atypical findings, investigation for MS (MRI was however normal and CSF analysis was negative for oligoclonal bands).

   Lyme disease - is a common cause of facial palsy in endemic areas but there was no history of exposure to ticks or recent travel abroad (and no evidence of erythema chronicum migrans).

   Guillain-Barre Syndrome - (Acute Inflammatory Demyelinating Polyneuropathy)
   Bilateral facial nerve palsy has an incidence of only 1 per 5 million populations per year, but may be the presenting feature of a potentially life threatening illness, hence care must be taken to exclude potential metabolic, infectious, vasculitic, traumatic, immunological (eg. multiple sclerosis) and neoplastic causes before diagnosing a bilateral Idiopathic or Bell's palsy. Herpes viruses and infectious mononucleosis may also affect the facial nerve
   Guillain-Barré syndrome, also known as an Acute Inflammatory Demyelinating Polyneuropathy (AIDP) is an acute demyelinating polyradiculopathy of uncertain aetiology which may present with facial nerve involvement in 27–50% of cases, often bilaterally. In many cases other cranial nerves may also be involved, with the possibilities of coexistent dysphagia and dysarthria. A history of a preceding viral infection is seen in most cases. Facial palsy usually follows limb weakness. In this case the facial nerve paralysis preceded any significant areflexia in the peripheral limbs, the so called 'descending variant' and loss was restricted to the ankle reflexes. Presenting features are variable and may include significant respiratory muscle paralysis, in which case invasive ventilation may be needed. Hence, early and regular pulmonary function assessments are recommended in all cases. Treatment is usually supportive, with immunoglobulin infusions or plasmapheresis in appropriate cases. Prognosis is generally good with the above measures.

2. **Social history**

   Lifestyle questions such as travel abroad or exposure to tick bites

3. **Investigations**

   CT and/or MRI. Inflammatory markers, serum protein electrophoresis for paraproteins and vasulitis screen viral serology for Varicella-Zoster and Herpes Simplex.