Neuralgic amyotrophy in A&E

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Abstract

Two patients with neuralgic amyotrophy (Parsonage-Turner syndrome) are described. Problems arising from the shoulder girdle commonly present to accident and emergency (A&E) departments. Neuralgic amyotrophy is an infrequent neuromuscular disorder which predominantly affects the shoulder girdle. Characterised by severe pain followed by muscle weakness, atrophy, and variable sensory deficits, the diagnosis is based on history and physical findings and is confirmed by electromyography. The prognosis is excels.
Neuralgic amyotrophy affects men more often than women. Most patients present between the ages of 30 and 60 years, though it has been reported from 3 months to 75 years. The upper branches of the brachial plexus are affected more often. Muscular involvement is most often seen in the deltoid, followed by supraspinatus, infraspinatus, biceps, triceps, and also serratus anterior which results in winging of the scapula. Involvement of the wrist flexors and extensors is also seen. Rarely cases of neuralgic amyotrophy of the lumbosacral plexus have been reported. Involvement of nerves other than of the brachial and lumbosacral plexi is well described. The accessory nerve is most commonly involved but cases are reported of multiple cranial nerve involvement, and Mulvey et al described 16 cases of diaphragmatic involvement presenting with dyspnoea. Although in the majority of cases no precipitating factors are apparent, in many there is an antecedent illness. Several series have reported a preponderance of cases in postoperative patients. Other cases have been reported after infection (for example, Weil's disease), vaccination (for example, hepatitis B), radiotherapy for Hodgkin's disease, and occasionally in small epidemics. These antecedents raise the possibility that neuralgic amyotrophy is an immunologically related disorder. This hypothesis was investigated by Sierre et al who showed that lymphocytes were sensitised to brachial plexus nerve in six patients with neuralgic amyotrophy, suggesting that this is an immune mediated disease.

The differential diagnoses of neuralgic amyotrophy include adhesions capsulitis and rotator cuff tendinitis, neither of which is associated with muscle wasting or sensory dysfunction. Acute poliomyelitis may produce a similar clinical picture but is only of clinical relevance in patients coming from the developing world who have not been immunised. Cervical disc prolapse may produce pain in the shoulder as well as both motor and sensory signs, and a CT myelogram or magnetic resonance imaging may be necessary to exclude this condition. The most useful diagnostic investigation for neuralgic amyotrophy is EMG, which will show evidence of denervation and a reduction in functioning motor units in the majority of cases.

The prognosis of neuralgic amyotrophy is excellent, with most studies showing full recovery of function within two years in over 80% of patients treated purely symptomatically. Strong analgesia is recommended during the early painful stages of the disease. The benefit of oral, parenteral, or intra-articular steroids remains uncertain. Physiotherapy helps to maintain a full range of joint movement and assists return of muscle function.

CONCLUSION
Neuralgic amyotrophy is a rare cause of shoulder girdle symptoms. The diagnosis should be considered in patients presenting with severe shoulder girdle pain in the absence of trauma. It must be remembered that pain precedes...
motor signs. For this reason we believe patients presenting with severe, unexplained shoulder girdle pain should be offered follow up, preferably by their general practitioner. If motor signs develop, the diagnosis can be confirmed with EMG and the patient reassured that the prognosis is excellent.

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CASE REPORTS

Potassium permanganate poisoning—a rare cause of fatal self poisoning

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Abstract

Attempted suicide by self poisoning is common because of the ready availability of drugs, whether prescribed or bought over the counter. In some cases, the ingestion of seemingly innocuous household products or chemicals can result in death. Potassium permanganate is an example. Poisoning with potassium permanganate can be fatal when a significant amount is ingested, as shown by a patient who suffered both the corrosive and systemic toxic effects of this chemical. (J Accid Emerg Med 1997;14:43–45)

Keywords: potassium permanganate poisoning; liver damage; kidney damage; laryngeal oedema

Potassium permanganate is a readily available over the counter agent that is widely used as an antiseptic for baths in patients with eczema—particularly the exudative types—due to its astringent properties. Historically its uses have been interesting: it has been used as an abortifacient, as a urethral irrigation fluid for treatment of gonorrhoea, as a fluid for stomach washout in cases of alkaloid poisoning, and in the solid form as a local remedy for snake bite. Although the chemical is readily available, potassium permanganate poisoning is not common.

Case report

Our patient was a 24 year Chinese female with no previous psychiatric history. She ingested an unknown quantity of potassium permanganate crystals after a domestic quarrel. She was immediately stopped by her relative and then drank a large amount of water. No other drug was ingested. She was first seen at a district hospital where gastric lavage was performed before her transfer to our department.

On arrival, she was alert and oriented. Her airway was patent and she had no stridor. There were brownish black stains on her hands and lips. There were similar staining of the entire oropharynx. The tongue and lips were swollen and bled on contact. Direct laryngoscopy under local anaesthesia showed a stained and oedematous pharynx, with gross swelling of the laryngeal structures. She was anaesthetised, intubated, and ventilated and was admitted to the intensive care unit.

Initial chest x ray was normal. Oesophagoscopy soon after admission showed staining of the upper oesophagus. The rest of the oesophagus, stomach, and duodenum were normal,