

Case Reports

Post-Traumatic Horner's Syndrome caused by the Use of a Manual Tyre Inflator

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Iatrogenic or accidental trauma could cause Horner's syndrome in isolation or in association with other multiple neurological manifestations. It has been reported following chiropractic manipulation of the cervical spine¹, and during a surgical operation². I report on a case where it was caused by the use of a manual tyre inflator.

A 40 year old male, who was unaccustomed to regular physical exercise, presented with pain over the right scapular region, that has come on a day after the use of a manual tyre inflator. On examination there were no physical signs and he was treated with analgesics and physiotherapy. He continued to experience discomfort over the same region and ten days later had developed pain around the right eye and on examination had partial ptosis, meiosis and enophthalmos of the same eye and he also had reduced sweating on the right side of the face. He exhibited sensory blunting over the medial aspect of the right forearm and weakness of the right abductor pollicis brevis muscle. Basic haematological, biochemical and radiological investigations including those of the thoracic inlet were normal. The treatment was continued and all physical

signs including those of the Horner's syndrome regressed within a further period of two weeks.

The neurological signs were caused by the involvement of the T1 and sympathetic nerve fibres. Possible sites of involvement are the cervical spinal cord or the area anterior and inferior to the head of the first rib where the T1 nerve and white ramus communicantes carrying preganglionic sympathetic fibres are in close apposition. The absence of other neurological symptoms and long tract signs would exclude a lesion in the cervical spinal cord.

A manual tyre inflator, when in use, has to be anchored between the feet of operator and air is pumped in forcefully by vertical upward and downward movements of the arms. In this patient the T1 nerve and the sympathetic fibres would have got stretched during this manoeuvre. The fact that he recovered fully within a course of a few weeks is suggestive of neuropraxia rather than an avulsion injury to the nerve fibres.

REFERENCES

1. Grayson M F. Horner's syndrome after manipulation of the neck. *BMJ* 1987 **295**: 1381-82.
2. Jaffe T B, McLesky C H. Position induced Horner's syndrome. *Anaesthesiology* 1982; **56**: 49-50.

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