

A Rare Cause Of Upper Limb Dysfunction: Parsonage-Turner Syndrome

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INTRODUCTION:

Parsonage-Turner Syndrome (PTS) is a rare condition with an annual incidence of 1-3/100,000 per year. Patients normally present with shoulder pain and progressive neurological deficits of the upper limb. It is a diagnosis of exclusion. The recovery pattern varies but full functional recovery generally occurs¹.

REPORT:

A young gentleman with no history of trauma presented with sudden onset left shoulder pain, followed by paralysis and paraesthesia of the left upper limb. Examination revealed non-specific tenderness over lower cervical region extending to the left shoulder and total loss of power and sensation from C5 to T1 nerve root.

A normal MRI cervical and brachial plexus invalidated our initial suspicion of cervical or brachial plexus pathology. Nerve conduction study demonstrated evidence of left brachial plexopathy – reduced sensory nerve action potential of left lateral antebrachial nerve and reduced compound muscle action potential amplitude of left axillary and musculocutaneous nerve.

The normal imaging findings and NCS results led us to make a diagnosis of PTS. He was initiated on B-complex vitamins and underwent intensive physiotherapy. Significant improvement of neurological function was attained in 3 months.

DISCUSSION:

The cause of PTS remains unknown. Factors e.g. trauma, infection, heavy exercise, immunization or autoimmune conditions may play a role.

Thorough clinical evaluation and imaging is warranted to exclude sinister pathology e.g. cervical or neoplastic lesions. PTS is self-limiting however late diagnosis result in prolonged debilitating symptoms. To date, there is no consensus on its treatment however oral steroids may shorten the duration of symptoms².

CONCLUSION:

The possibility of PTS should be considered when encountering a patient with acute onset unusual arm pain with neurological deficit in the arm or shoulder girdle.

REFERENCES:

1. van Alfen, Nens et al. Incidence of Neuralgic Amyotrophy (Parsonage Turner Syndrome) in a Primary Care Setting - A Prospective Cohort Study. *PloS one*. 10. e0128361. 10.1371/journal.pone.0128361.
2. Yabe, H., Kimura, M. et al. Parsonage-Turner Syndrome Initially Suspected of Being Orthopedic Diseases in a Primary Care Setting: A Case Report. *Journal Of Medical Cases*, 5(4), 197-201.

Table 1: Progression of Left Upper Limb Neurological Status

	T=1	T=14	T=30	T=90
Myotome				
C5	0	2	2	4
C6	0	1	2	3
C7	0	1	2	3
C8	0	1	2	3
T1	0	1	2	3
Dermatome				
C5	0	1	1	2
C6	0	1	1	2
C7	0	1	1	2
C8	0	1	1	2
T1	0	1	1	2

T=1 indicates the first day of clinical encounter
T=90 indicates three months post initial clinical encounter