A TRAUMATIC THORACIC RADICULOPATHY: CASE REPORT

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Introduction

Thoracic radiculopathy is the least common location for compressed nerve root. Clinical presentation is often atypical, with nonspecific symptoms as abdominal pain, which leads to a delay in its diagnosis. Present case shows a thoracic radiculopathy secondary to a lumbar fracture.

Trial	P37 (ms)	PF (ms)	P37-N45 (µV)
Norm	<43.5		
Trial7 - R	40.3	0.0	0.18
Trial8 - L	38.1	0.0	0.89
L-R Norm	<1.6		
L-R	**2.2**	0.0	0.71

Table 1. Somatosensory evoked potentials of the iliohypogastric nerve.

Patient Information and Clinical Findings

A 60 years old man suffers a fracture in L1 vertebral body. Arthrodesis T12 to L2 with corpectomy was realized. After surgery the patient develops band pain in the lower abdomen and abdominal distention. In the clinical evaluation, no limitation in the mobility or signs of neurological impairment were observed. Initially it was considered as a pathology of abdominal origin, however electrodiagnostic studies were requested. Ultrasound-guided electromyography was performed in paraspinal muscles and at the abdominal wall level, which showed abundant signs of denervation. Also, alterations in somatosensory evoked potentials of the iliohypogastric nerve were found. A radicular lesion with axonal involvement at lower thoracic levels (T11-T12) was diagnosed. Patient is currently being managed with analgesics and neuromodulators.

Side	Muscle	Nerve	Root	Ins Act	Fibs	Psw	Amp	Dur	Poly	Recrt	Int Pat
Bilateral	Ext Oblique	Intercostals	T6-12	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml
Bilateral	Rectus Abdom	Intercostals	T6-12	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml
Bilateral	Int Oblique	Intercostals	T8-12	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml
Bilateral	Quad Lumborum	Rami	T12-L4	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml
Left	Gastroc	Tibial	S1-2	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml
Left	Lumbo Parasp Low	Rami	L5-S1	Nml	Nml	Nml					
Right	Lumbo Parasp Low	Rami	L5-S1	Nml	**3+**	**3+**					
Right	AntTibialis	Dp Br Fibular	L4-5	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml
Right	ExtHallLong	Dp Br Fibular	L5, S1	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml
Right	Gastroc	Tibial	S1-2	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml
Right	VastusMed	Femoral	L2-4	Nml	Nml	Nml	Nml	Nml	0	Nml	Nml
Right	Transverse Abdom	Intercostals	T7-12	Nml	**2+**	**2+**	Nml	Nml	0	Nml	Nml
Left	Transverse Abdom	Intercostals	T7-12	Nml	**3+**	**3+**	Nml	Nml	0	Nml	Nml

Table 2. Ultrasound-guided electromyography (EMG).

Discussion and Conclusion

Although the patient presented clinical features of thoracic radiculopathy, diagnosis is not always easy. Electrodiagnostic studies become especially relevant since they allow a better characterization of the signs of radicular lesion and alterations in the conduction of large caliber myelinated pathways where ultrasound is of great help for the location of the neuromuscular structures. After establishing an accurate diagnosis, multidisciplinary management is essential to control pain, initiate rehabilitation and evaluate possible surgical management.

Choi, H. E., Shin, M. H., Jo, G. Y., & Kim, J. Y. (2016). Thoracic Radiculopathy due to Rare Causes. Annals of rehabilitation medicine, 40(3), 534–539.