P-165

A Case of Unicentric Castleman Disease Presenting with Unilateral Lumbosacral Radiculoplexopathy

Jong Hyun Park[1], Hong Bum Park[1], Se Ryeon Lee[2], Dong Hwee Kim[1] (rmkdh@korea.ac.kr)

[1] Department of Physical Medicine and Rehabilitation, Korea University College of Medicine

[2] Department of Medical Oncology and Hematology, Korea University College of Medicine

INTRODUCTION

Castleman disease, also known as angiofollicular lymph node hyperplasia, is a rare lymphoproliferative disorder characterized by benign proliferation of lymphoid tissue. Neurological manifestations in Castleman disease are rare, but can include neuropathies secondary to compression by enlarged lymph nodes or immune-mediated mechanisms. The case report addresses unicentric Castleman disease presenting with unilateral lower extremity weakness as an initial symptom.

CASE REPORT

Patient information

- Male, 55 years old

Chief complaint

- Hypoesthesia, progressive weakness, and muscle atrophy in the left lower extremity (Onset : 3 years ago)

Physical examination

Motor (Lt.) :

- Hip extension, abduction (Grade 3)
- Knee flexion, Ankle plantarflexion (Grade 4)
- Ankle dorsiflexion, Great toe extension (Grade 0~1)

Sensory : Lt. buttock, lateral leg mild hypoesthesia, and hypoesthesia on the left dorsum and sole of foot

Others : Atrophy in the left thigh and calf, hypoactive left ankle reflex

Tests

- **Electrodiagnosis** : Severe left lumbosacral radiculoplexopathy involving the sciatic and inferior gluteal nerves, and the L5, S2, S3 roots.
- Excisional biopsy, immunohistochemical staining of Lt. inguinal lymph node : **Castleman disease**

Management : Oral steroid pulse therapy, prednisolone 60mg

ELECTRODIAGNOSIS

Nerve	Stimulation	Recording	Amplitude (mV)		Conduction velocity (m/s)	
			Right	Left	Right	Left
Tibial (motor)	Ankle	AH	13.5	6.6*		36*
	Popliteal fossa	EDB		4.3		
Peroneal	Ankle	EDB		NR*		NR*
	Fibular head	EDB		NR*		
Peroneal	Ankle	TA	7.9	NR*		NR*
		TA	7.6	NR*		
Sural	Calf	Ankle	11	NR*		
Superficial peroneal	Calf	Ankle	5	NR*		
Medial plantar	Sole	Ankle	3	NR*		
Lateral plantar	Ankle	Sole	3	NR*		

Table 1 : Motor and sensory nerve conduction studies. NR: No Response, AH : Abductor Hallucis, EDB : Extensor Digitorum Brevis, TA : Tibialis Anterior

Muscle	Fib/Psw	Motor unit action potentials		Recruitment
		Configuration	Duration	
TA	++			NR
PL	++			NR
GCM	++	Polyphasic	Long	Reduced
BF,short head	+	Polyphasic		Discrete
Medial hamstrings	+	Polyphasic		Maximally reduced
FDL	+	Polyphasic	Long	Reduced
Gmax	+	Polyphasic		NR
S1/2, 2/3, 3/4 PVMs	+			

Table 2. Needle EMG findings. NR: No Response, TA : Tibialis Anterior, PL : Peroneus Longus, GCM : Gastrocnemius Medial head, BF : Biceps Femoris, FDL : Flexor Digitorum Longus, Gmax : Gluteus Maximus, PVMs : Paravertebral Muscles

IMAGING STUDY

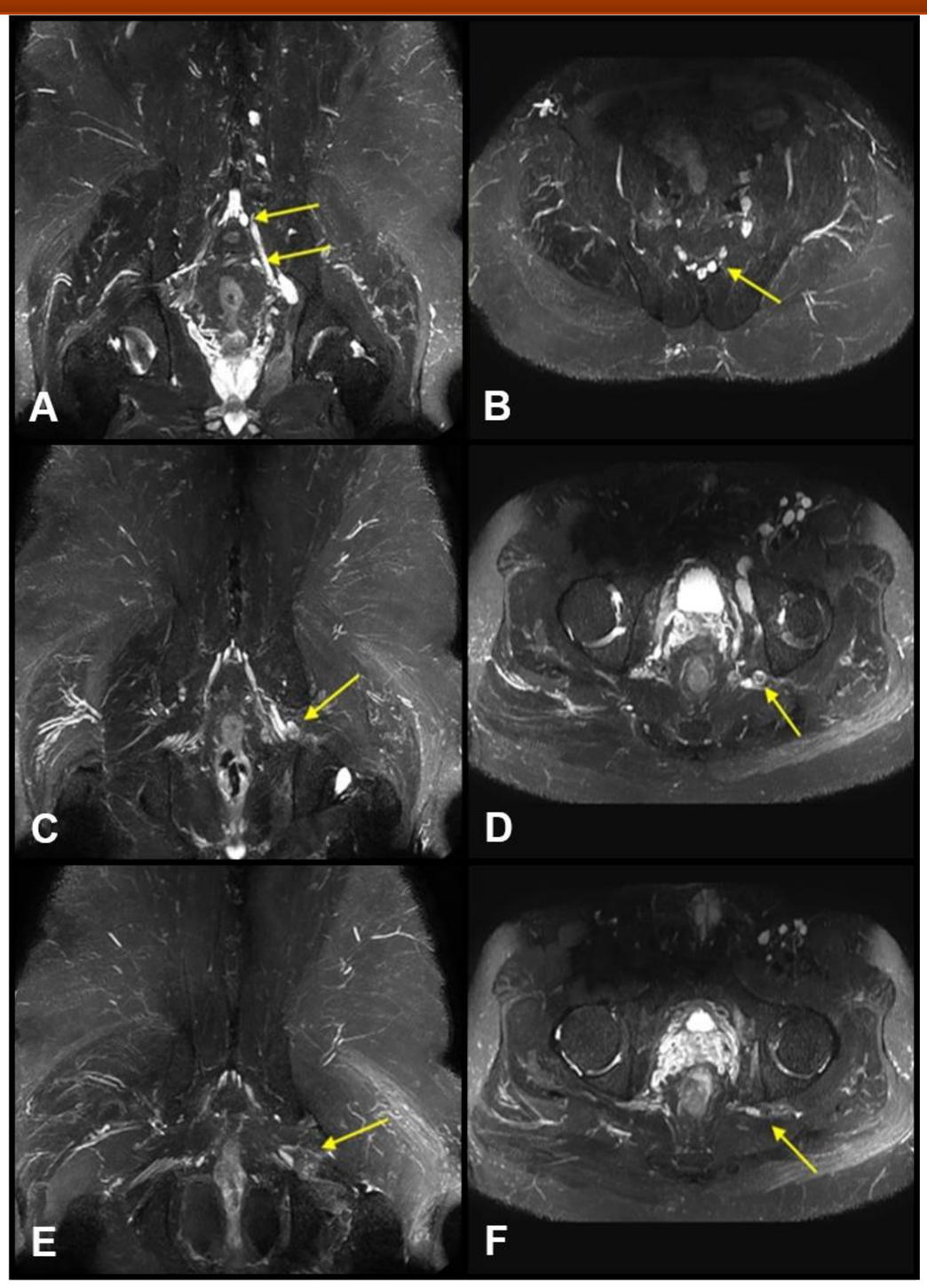

Fig. 1. MRI demonstrates coronal and axial images of lumbar and sacral plexus. T2 hyperintensity with marked swelling of the left S1-2 nerve roots (A,B) and left proximal sciatic nerve are noted (C,D), with enhancing perineural infiltration of the sciatic nerve posterior to the posterior acetabulum (E,F), as indicated by the yellow arrows.

Fig. 3. Torso PET-CT (FDG) demonstrates multiple hypermetabolic lymph nodes along the left ilioinguinal chain (A, B), as indicated by the yellow arrows, and a hypermetabolic lesion posterior to the left posterior acetabulum (B), indicated by the white arrow, suggesting sciatic nerve involvement.

DISCUSSION & CONCLUSION

This is the first case report of unicentric Castleman disease presenting with unilateral lumbosacral radiculoplexopathy. In Castleman disease presenting with atypical symptoms and signs, diagnostic imaging modalities, such as MRI and PET-CT, as well as electrodiagnostic studies, play a crucial role in diagnosis. To confirm Castleman disease, a lymph node biopsy has to be performed. Integrating these