

신경근육재활 및 전기진단

게시일시 및 장소 : 10 월 18 일(금) 13:15-18:00 Room G(3F)

질의응답 일시 및 장소 : 10 월 18 일(금) 15:45-16:30 Room G(3F)

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A Case of Neoplastic Lumbosacral Plexopathy in Untreated Cervical Cancer

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INTRODUCTION

Although the morbidity of cancer is increasing, involvement of cancer to the peripheral nervous system is uncommon. Especially, neoplastic lumbosacral plexopathy(NLP), usually manifested as painful neuropathy, is a rare complication. CT or MRI scan is commonly considered as the initial modality to surmise NLP. In this case, we discuss a patient who was initially thought as a herniated disc patient, then suspected as NLP after electromyography and sonography was done.

CASE REPORT

A 40-year-old woman complained rapidly progressive right lower extremity pain and weakness that had developed for nearly 5 months. The patient was diagnosed as micro-invasive cervical squamous cell carcinoma 17 months ago, but she had refused further workup and palliative treatment such as chemo-radiation therapy. Approximately a year after the initial diagnosis, the patient presented with right hip and leg pain, hypoesthesia and weakness. She selected an alternative medicine preferentially, and received honey bee venom needle therapy for 6 months but the symptoms were not relieved. The patient visited a pain clinic and diagnosed as lumbar disc herniation on MRIs and received disc decompression and percutaneous epidural neuroplasty with ballooning. However, the symptoms progressed and eventually foot drop occurred. On physical examination, the motor function was zero in flexor and extensor of ankle and toes, poor in knee flexor and hip extensor. Hypoesthesia was noticed from right posterior and medial leg to foot. Right ankle reflex was not present. Upper motor neuron signs were not evident. Electrophysiological study suggested severe right multiple lumbosacral plexopathy from L5 root to S4 root with considerable involvement of sciatic nerve. (Table 1) On ultrasonography, remarkably enlarged right sciatic nerve was identified from gluteal fold to thigh. (Figure 1). Magnetic resonance imaging of the pelvis revealed marked enlargement of the right lower lumbosacral plexus from L5-S3 nerve roots to right sciatic nerve. (Figure 2) Following FDG PET/CT demonstrated linear asymmetric FDG activity in the right pelvis compatible with the swelling of lumbosacral plexus on the MRI imaging. These findings insist the neural metastases from L5-S3 nerve roots along the right sciatic nerve. The patient was clinically diagnosed as stage III C1 cervical cancer with invasion to

the right pelvic wall and with multiple lymph node metastases and planning to go under biopsy and following concurrent chemo-radiation therapy.

CONCLUSION

Intraneural metastasis in lumbosacral plexus caused by malignancy is a rare condition, and majority of cases occur in the patients with prostate cancer. In this case, the patient with untreated cervical cancer who presented lower extremity weakness and pain was finally diagnosed as neural metastases after several procedures. Electromyography and ultrasound imaging were valuable modalities for the diagnosis of the perineural malignancy.

Table 1.

Nerve conduction study							
Side	Motor	Stimulation site	Recording site	Latency (msec)	Amplitude (mV)	NCV (m/s)	F wave (msec)
	Nerve						
Rt.	Tibial	ankle	AH		NR		
	Peroneal	ankle	EDB		NR		
Side	Sensory	Stimulation site	Recording site	Latency (msec)		Amplitude (uV)	Distance (cm)
	Nerve			Onset	Peak		
Rt.	Sural	calf	ankle			NR	14
	Supf. peroneal	leg	ankle			NR	14
	Medial plantar	sole	ankle			NR	12
Needle electromyography							
Muscle	Insert. activity	Abnormal spontaneous	Motor Unit Action Potentials			Recruitment	
			Polyphasic	Amplitude	Duration		
Rt.	Iliopsoas	N	-	N	N	N	F
	Vastus lateralis	N	-	N	N	N	F
	Tibialis anterior	IIA	tiny F&P(+)	No M.U.A.P			
	Peroneus longus	IIA	tiny F&P(++)	No M.U.A.P			
	Gastrocnemius med.	IIA	tiny F&P(++)	No M.U.A.P			
	Flexor digitorum longus	IIA	tiny F&P(++)	No M.U.A.P			
	Flexor hallucis brevis	IIA	tiny F&P(+)	No M.U.A.P			
	Tensor fascia lata	IIA	tiny F&P(+)	Inc. polys			R
	Gluteus maximus		equivocal				S
	Semitendinosus		tiny F&P(++)	Slightly Inc. polys			min R
	Gluteus medius	N	-	N	N	N	F
	External anal sphincter		CRD	Inc. polys			mod~max R
	L4/5, L5/S1 PVMs	IIA	-				
S1/2, S2/3 PVMs	N	-					

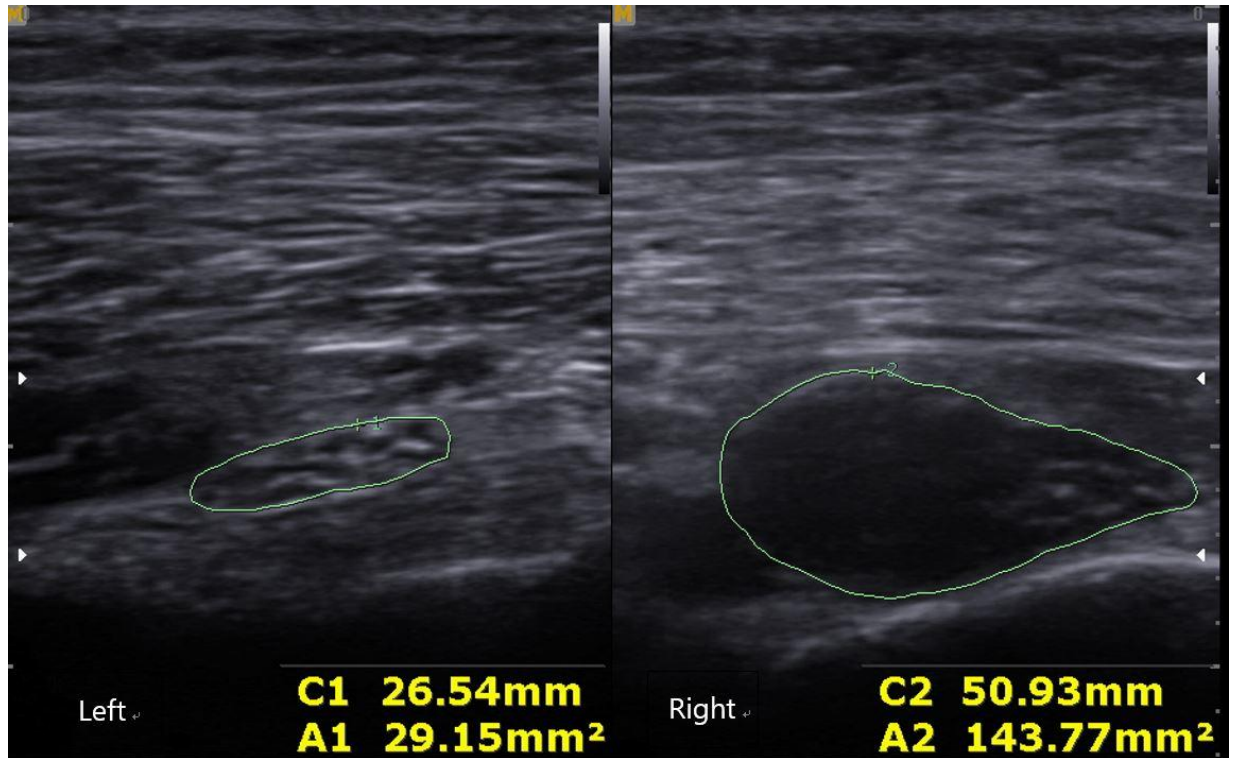


Figure 1. Cross-sectional sonographic image in mid gluteal area. The area of sciatic nerve is significantly increased on the right side compared to the left side.(C1/C2: Circumference of the left/right sciatic nerve, A1/A2: Area of the left/right sciatic nerve)

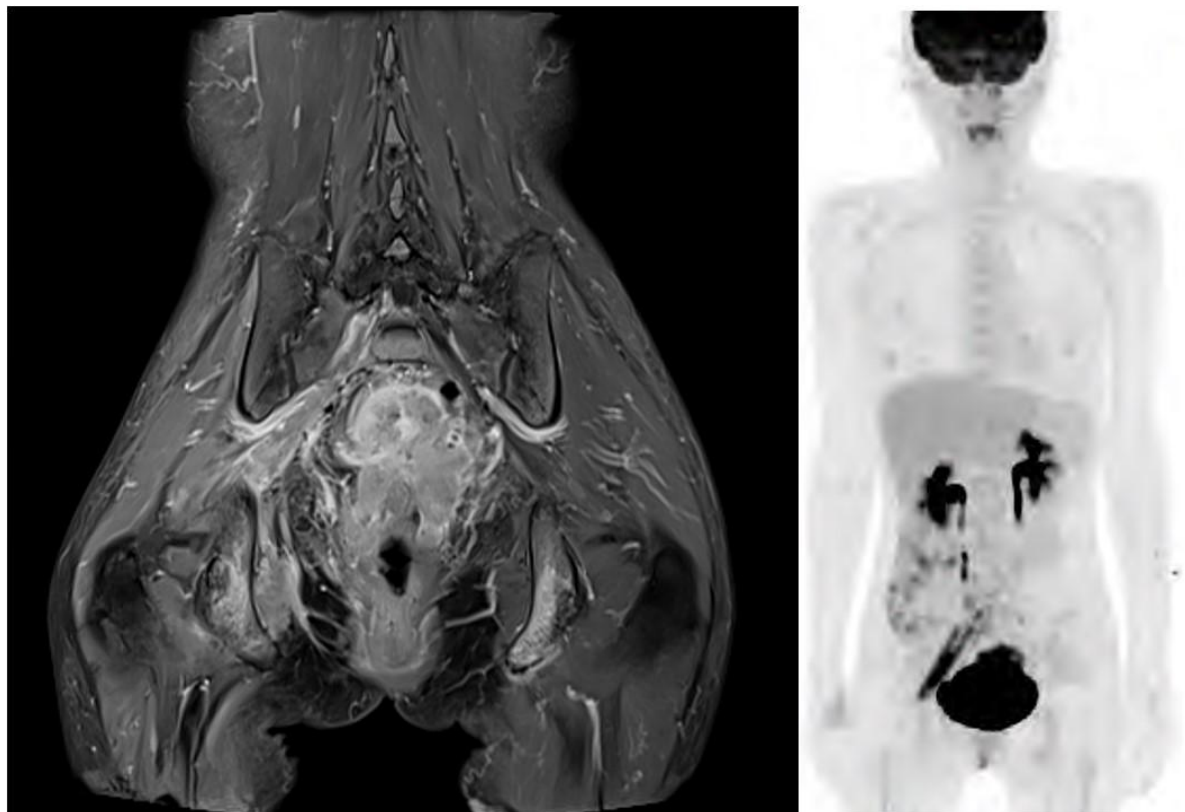


Figure 2. MRI (T1-weighted) and FDG PET/CT image of neural invasion by cervical cancer. The right lumbosacral plexus is obviously enlarged with low-signal mass on MRI. Linearly increased FDG uptake is found in the right pelvis on PET/CT. Correlating these image findings, neoplastic lumbosacral plexopathy is suspected.