

P 1-148

A Unusual Complication of Sacral nerve root Injury Following Harvesting Bonemarrow : A CASE REPORT

Tae-Woo Nam^{1*}, Won-Jong Yang¹, Jae-Eun Lee², Seung-Hwan Jung², Jong-Moon Hwang²,
Tae-Du Jung^{1†}

Kyungpook National University Medical Center, Department of Rehabilitation Medicine¹,
Kyungpook National University Hospital, Department of Rehabilitation Medicine²

Rationale

Hematopoietic stem cell transplantation(HSCT) represents an important therapeutic option for many hematologic disease. Many studies showed the complication of recipient after Hematopoietic stem cell transplantation(HSCT). However, complications of harvesting bonemarrow are rare and rarely can cause sacral root injury.

Patient concerns

An 26-year-old man was admitted to our medical center because he complained of acute onset painful burning and tingling sensation at the left posterior thigh and calf. The pain score on the Visual Analogue Scale(VAS) varied from 7/10 to 8/10. He underwent a bonemarrow harvesting procedure two days before the hospitalization as a bonemarrow donor, using both posterior superior iliac spine(PSIS) as a puncture site at the supine position.

Diagnoses

Pelvic MRI showed enhancement around the left S2 nerve root in T1-weighted images. He was examined nerve conduction study and electromyography after 3 weeks later from the admission. Nerve conduction studies revealed normal conduction velocity and amplitude on both lower extremity. Electromyography presents abnormal spontaneous potential and neurogenic motor unit potentials on the S2-innervated intrinsic foot muscle at the left. Interventions He was treated with analgesics for pain control. Lyrica(Pregabalin)

Outcomes

The patient was followed up after 3 and 6 months. Neuropathic pain improved to Visual Analogue Scale(VAS) 3/10, and recovery state was confirmed by reinnervation patterns of motor unit potentials in electromyography.

Lessons

Accurate anatomical knowledge and carefulness are required to avoid the sacral nerve root injury when performing the bonemarrow harvesting procedure.

Table 1. Electromyography findings of patients

Muscle	Electromyography								
	1 month			3 months			6 months		
	PSW	PPP	Recr	PSW	PPP	Recr	PSW	PPP	Recr
TA	N	N	N	N	N	N	N	N	N
PL	N	N	N	N	N	N	N	N	N
AH	1+	N	SD	2+	N	MD	N	P	SD
ADM	1+	P	SD	1+	P	D	N	P	SD
GCN	1+	N	SD	1+	P	SD	N	P	SD
Soleus	N	P	N	1+	N	SD	N	P	SD
SM	N	P	N	N	P	SD	N	P	SD
GM	N	N	N	N	N	N	N	N	N
VM	N	N	N	N	N	N	N	N	N
L-PSP	1+			1+					

TA : Tibialis anterior, PL : Peroneus longus, AH : Adductor hallucis, ADM : Abductor digiti minimi, GCN : Gastrocnemius, SM : Semimembranosus, GM : Gluteus maximus, VM : Vastus medius
L-PSP : Lumbar paraspinalis



Fig 1. Puncture site of bonemarrow harvesiting. The patient underwent bonemarrow harvesting through posterior superior iliac spine(PSIS).

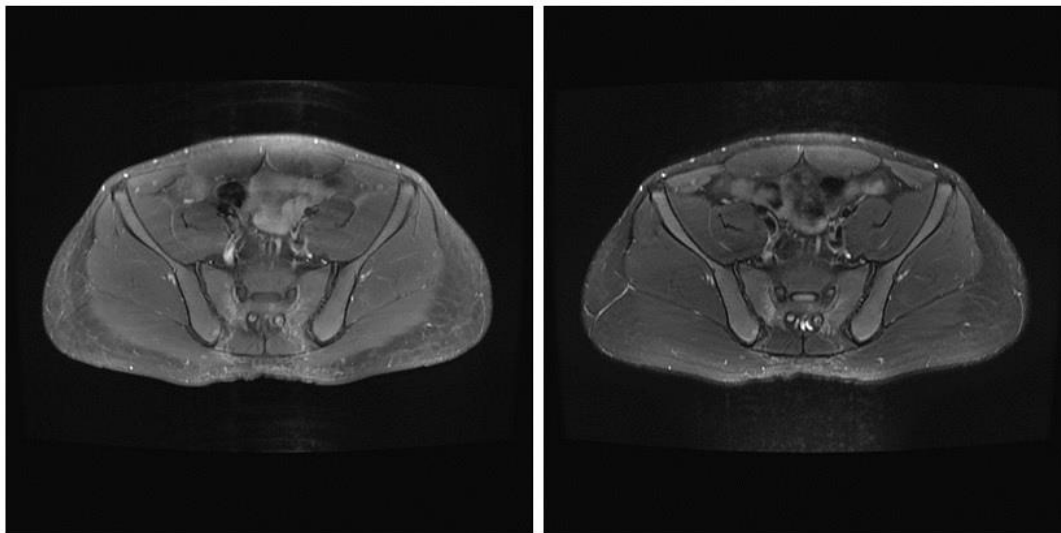


Fig 2. MRI of pelvis-The axial(T1 weighted-left, T2-weighted-right) views show the signal change with enhancement at left S2 nerve root.