Unusual Peroneal Nerve Palsy caused by Intraneural Ganglion Cyst

Jung-sang Lee^{1*}, Jong Geol Do^{1†}, Kyung Jae Yoon¹, Yong-taek Lee¹, Kunwoo Kim¹, Jin-Tae Hwang¹, Jae Hyeong Choi¹

Kangbuk Samsung Medical Center, Department of Rehabilitation Medicine¹

Peroneal nerve palsy is a common clinical problem and has been attributed to numerous causes. Among them, intraneural ganglion cyst is very rare but it sometimes reported as a plausible cause of the peroneal nerve palsy. Intraneural ganglion cyst is mucinous lesions found within the epineurium of nerves, which Results in neurological deficit due to the displacement of nerve fascicles by the cyst contents. We have experienced a case of the intraneural ganglion cyst in the common peroneal nerve, which was located at the level of the fibular head. A 40-year-old male presented to our outpatient clinic with a fivemonth history of pain over the fibular head area and gait difficulty. Careful physical examination revealed a round and painful lump on the lateral aspect of fibular neck. Weakness was observed in eversion and foot dorsiflexion. Sensory disturbance was matched to the peroneal distribution of the dorsal and lateral side of the foot. Magnetic resonance imaging revealed a cystic articular branch with balloon-like expansion at the level of the common peroneal nerve and multi-lobulated cystic mass extending around the fibular neck (Fig. 1). Surgical exploration revealed a mass invading the sheath of common peroneal nerve and surgical removal of the mass was performed (Fig. 2). The resected mass was histologically compatible with a ganglion cyst. However, the patient's neurologic deficit did not change significantly. In case of intraneural ganglion cyst, accurate diagnosis and prompt treatment are needed. We here report a case of intraneural ganglion cyst, a rare cause of peroneal nerve palsy.

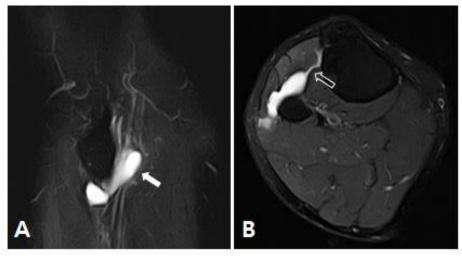


Fig. 1. Magnetic resonance image (MRI) of right knee shows findings of intraneural ganglion cyst. (A) Sagittal and (B) axial scans of MRI demonstrated cystic articular branch with balloon-like expansion at the level of the common peroneal nerve and multi-lobulated cytic lesion with high signal intensity around the fibular neck.



Fig. 2. A mass invading the sheath of common peroneal nerve was shown. The mass was dissected from the sheath of the common peroneal nerve.