From 2007 to 2011, 5 patients with sacral plexus nerve injury underwent ipsilateral obturator nerve transfer as part of a strategy for surgical reconstruction of their plexuses. The mean patient age was 31.4 years (range, 19-45 years), and the mean interval from injury to surgery was 5.8 months (range, 3-8 months). The anterior branch of the obturator nerve was coapted to the branch of the tibial nerve innervating the medial head of the gastrocnemius muscle by autogenous nerve grafting.

Patient follow-up ranged from 24 to 38 months. There were no complications related to the surgery. Three patients recovered to Medical Research Council grade 3 or better in the medial head of the gastrocnemius muscle. Thigh adduction function was not affected in any patient.

Knee and ankle flexion can be achieved by transferring the anterior branch of the obturator nerve to the branch of the tibial nerve innervating the medial head of the gastrocnemius muscle, which is useful for balance. This procedure can be used as a new method for treating sacral plexus nerve injury [1].

1)
Yin G, Chen H, Hou C, Xiao J, Lin H. Obturator Nerve Transfer to the Branch of the Tibial Nerve Innervating the Gastrocnemius Muscle for the Treatment of Sacral Plexus Nerve Injury. Neurosurgery. 2015 Dec 1. [Epub ahead of print] PubMed PMID: 26650845.