

Corticobulbar tract

The corticobulbar (or corticonuclear) [tract](#) is a two-neuron [white matter motor pathway](#) connecting the [cerebral cortex](#) to the [brainstem](#) primarily involved in carrying the motor function of the non-oculomotor cranial nerves.

The corticobulbar tract conducts impulses from the brain to the cranial nerves.

These nerves control the muscles of the face and neck and are involved in facial expression, mastication, swallowing, and other functions.

Several studies have reported injury of the CBT in patients with brain injury, however, little is known about recovery of the injured CBT.

A 59-year-old right-handed male underwent decompressive craniectomy for management of brain swelling and intracerebral hemorrhage following an infarction in the left middle cerebral artery territory. Initially, the patient had showed severe dysphagia and had to be fed using a Levin tube. Five weeks after the onset of stroke, the patient was transferred to the rehabilitation department and underwent comprehensive rehabilitative therapy. Cranioplasty was performed eight weeks after the onset. The patient was completely recovered from dysphagia and the Levine tube was removed nine weeks after the onset.

Diffusion tensor imaging was performed twice; at five weeks and nine weeks from the onset.

On five-week diffusion tensor tractography (DTT), the right CBT was discontinued at the subcortical white matter and showed severe narrowing and the left CBT was not reconstructed. By contrast, on nine-week DTT, the right CBT was extended to the cerebral cortex and thickened while the left CBT remained not reconstructed in DTT.

This case demonstrates the association of the recovery of injured CBT with the recovery of dysphagia using DTT ¹⁾.

¹⁾

Jang S, Kim J, Seo Y, Kwak S. Recovery of an injured corticobulbar tract in a patient with stroke: A case report. *Medicine (Baltimore)*. 2017 Sep;96(38):e7636. doi: 10.1097/MD.0000000000007636. PubMed PMID: 28930819.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=corticobulbar_tract

Last update: **2024/06/07 02:49**

