# Vocal cord

Classically the 11th cranial nerve (CN XI, or accessory nerve) is described as having a cranial and a spinal root, the latter arising from the upper segments of the spinal cord through a number of very fine rootlets. According to classical knowledge, the cranial root gives motor innervation to the vocal cords, whereas the spinal root provides the motor innervation of the sternocleidomastoid muscle (SCM) and of the upper portions of the trapezius muscle (TZ). The specific function of each of the rootlets of the spinal component is not well known.

The function of each of the rootlets of CN XI appears to be specific. The cranial root contributes, independently of the spinal root, to the innervation of the vocal cords, which makes it a specific entity. The spinal root innervates the SCM and TZ with a cranio-caudal motor organization of its cervical rootlets [1].

Endotracheal surface electrodes allow identification of vocal cord motor rootlets in the cerebello pontine angle (CPA). Worsening of compound motor action potentials (CMAPs) parameters might indicate functional impairment. These aspects support the use of endotracheal surface electrodes in selected patients in whom the vagus nerve might be at risk during CPA surgery [2].

The majority of motor fibers of the lower cranial nerves run through the caudal part of the rootlets at the cerebellomedullary cistern, and the maximal electromyographic response at the vocal cord was elicited at the most caudal or second most caudal rootlet [3].

## Vocal cord paresis

Vocal cord paresis.

## Vocal cord paralysis

Vocal cord paralysis.

1)
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2)
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3)
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