

Recurrent hemifacial spasm after microvascular decompression



[Microvascular decompression](#) (MVD) is a highly effective treatment for [hemifacial spasm](#) (HFS), but even if the [root exit zone](#) (REZ) from the [brainstem](#) is adequately decompressed, residual [spasms](#) after surgery or early reappearance of spasms are not uncommon ^{1) 2) 3) 4) 5)}

Return of symptoms after a period of complete resolution of [hemifacial spasm](#) occurs in up to 10% of patients, 86% of recurrences happen within 2 yrs of surgery, and the risk of developing recurrence after 2 yrs of post-op relief is only $\approx 1\%$ ⁶⁾.

Among more than 2500 patients who underwent [microvascular decompression for hemifacial spasm](#), 23 patients received a second MVD in the [Kyung Hee University Hospital](#) from January 2002 to December 2017. Three-dimensional [Time-of-flight magnetic resonance angiography](#) and reconstructed imaging were used to identify the culprit vessel and its conflict upon [root exit zone](#) (REZ) of the [facial nerve](#). They reviewed patients' medical records and operation [videos](#) to identify the missing points of the first surgery.

8 patients had incomplete decompression, such as single-vessel decompression of multiple offending vessels. Teflon was not detected at the REZ, but was found in other locations in 12 patients. Three patients had severe adhesion with previous Teflon around the REZ. Nineteen patients had excellent surgical outcomes at immediate postoperative evaluation; 20 patients showed spasm disappearance at 1 year after surgery and 3 patients showed persistent symptoms. Neuro-vascular contacts around REZ of facial nerve were revealed on MRI of incomplete decompression and Teflon malposition patient groups. There were no clear neuro-vascular contacts in the patients with severe Teflon adhesion.

The decision on secondary MVD for persistent or recurrent spasm is troubling. However, if the neurovascular contact was observed in the MRI of the patient and there were offending vessels, the surgical outcome might be favorable ⁷⁾.

References

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