Why is Transposition in Microvascular Decompression for Hemifacial Spasm Necessary?

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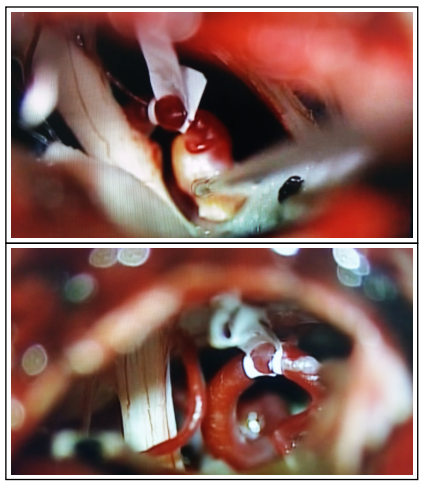
Introduction

Microvascular decompression is an effective treatment modality for hemifacial spasm. Interposition method using prosthesis is usually underwent and it is known that initial success rate is 90 to 95%. However, ***the recurrence after microvascular decompression was not rare***. Here we present about the **causes for the recurrent hemifacial spasm after microvascular decompression and our preliminary experience for the transposition technique using the Gore-tex belt.**

Methods

<Interposition technique>
Duration ; 1986 ~ 2014
27 cases of reoperation after MVD
(27 / 2200 cases)
Interval(initial to reoperation) ; 5days ~ 23yrs
All patients were treated by re-operation(MVD)

<Transposition technique>
Duration ; 2013. 10 ~ 2014. 12
34 patients MVD by Gore-tex belt



-Transposition technique using the gore-tex belt in initial operation-

-Transposition technique using the gore-tex belt in teflon adhesion case-

Results

<Interposition technique>

Cause of reoperation	No. of pts
Adhesion	21
New vessel compression	1
Misjudgement of offender	3
Improper graft material	1
Negative finding	1

Postop. outcome	No. of second MVD
Excellent	12
Good	11
Fair	3
Poor	1

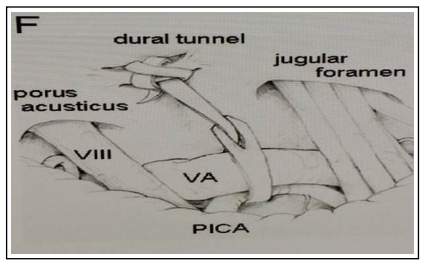
<Transposition technique>

Postop. outcome	No. of pts
Excellent	22
Good	6
Fair	6
Poor	0

Discussion

<Causes of recurrence>
1.Adhesion(Teflon granuloma)(most common cause)
2.Misjudgement of offender
3.Inadequate nerve decompression
4.Slippage or failure of the interposition material

<Transposition technique>
"Stitched sling retraction technique"
; Masuoka J. et al. (2011)
"Hanging technique"
; Mitsos et al. (2008)
"Strip clip technique"
; Raabe et al. (2011)
"Gore-tex belt technique"
; Tanaka et al. (2014)



Conclusions

For reduce the recurrence after microvascular decompression, ***initial operation is very important because of reoperation is associated with relatively high risk of complication and technically difficult.*** And for prevention of adhesion, ***transposition technique is recommended as can as possible*** although large series of patients with longer follow-up period is necessary.

Learning Objectives

Interposition technique in microvascular decompression for hemifacial spasm have a more recurrence rate than transposition technique. And so, **for reduction of recurrence, transposition technique is recommended as can as possible.**

References

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2. Raabe andreas, Jaiimsin alongkorn, Seifert volker, Beck jurgen : Use of a strip-clip technique to maintain transposition of a vertebral artery in microvascular decompression surgery. Acta Neurochir 153: 2393-2395, 2011
3. Tanaka yuichiro, Uchida masashi, Onodera hidetaka, Hiramoto jun, Yoshida yasuyuki : Simple transposition technique for microvascular decompression using an expanded polytetrafluoroethylene "Belt" ; technical note. Neurol Med Chir 54: 483-485, 2014