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DISCOVERING NEUROSURGERY:  
NEW FRONTIERS



American  
Association of  
Neurological  
Surgeons

# Avoidance of CSF leak after Microvascular Decompression with Clinical Use of a New Synthetic Adhesive Film

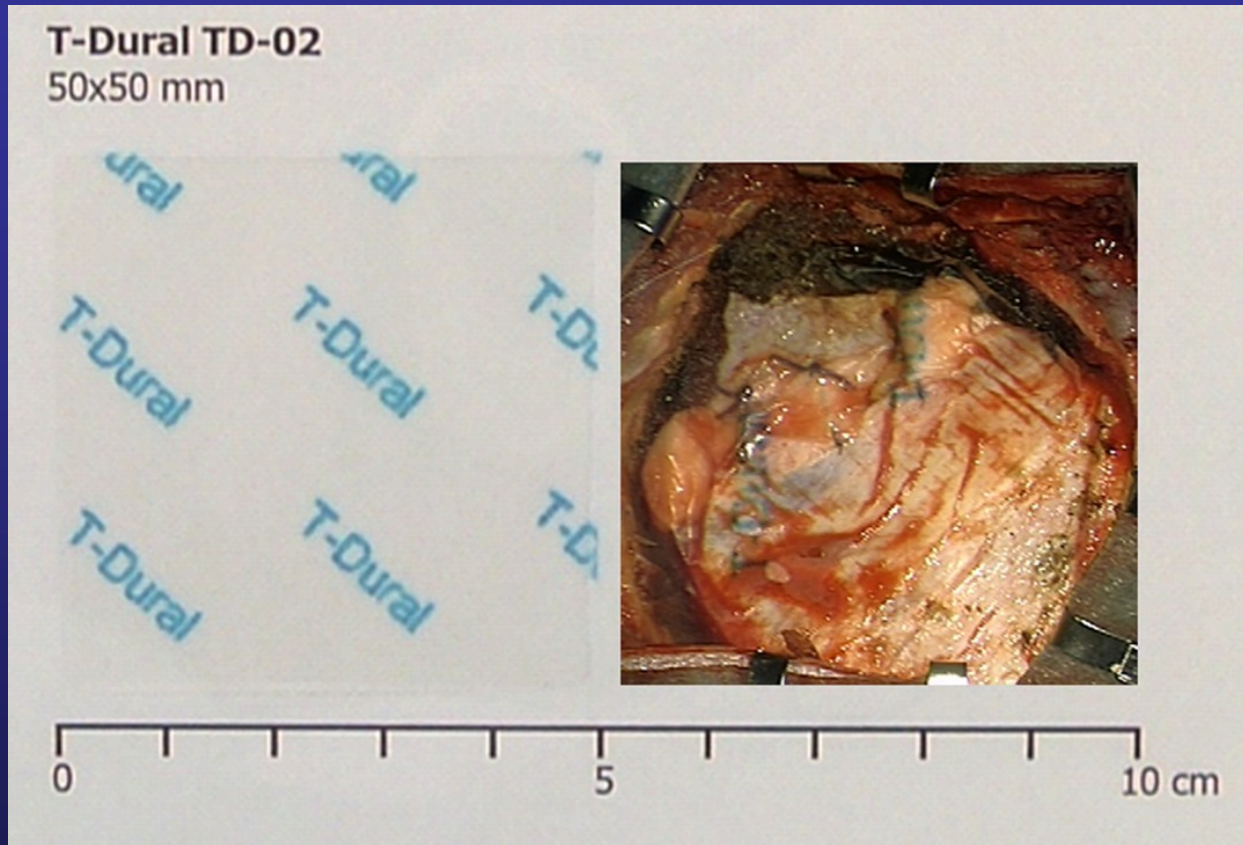
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# Tissue-Patch Dural - Tissuemed



TPD is a sterile, self-adhesive, absorbable surgical sealant and barrier. It is a multilayered device comprising alternate layers of poly(lactide-co-glycolide) and a proprietary “Terpolymer”. Poly(lactide-co-glycolide) is a resorbable membrane that provides reliable strength for temporary wound support

## Materials and Methods

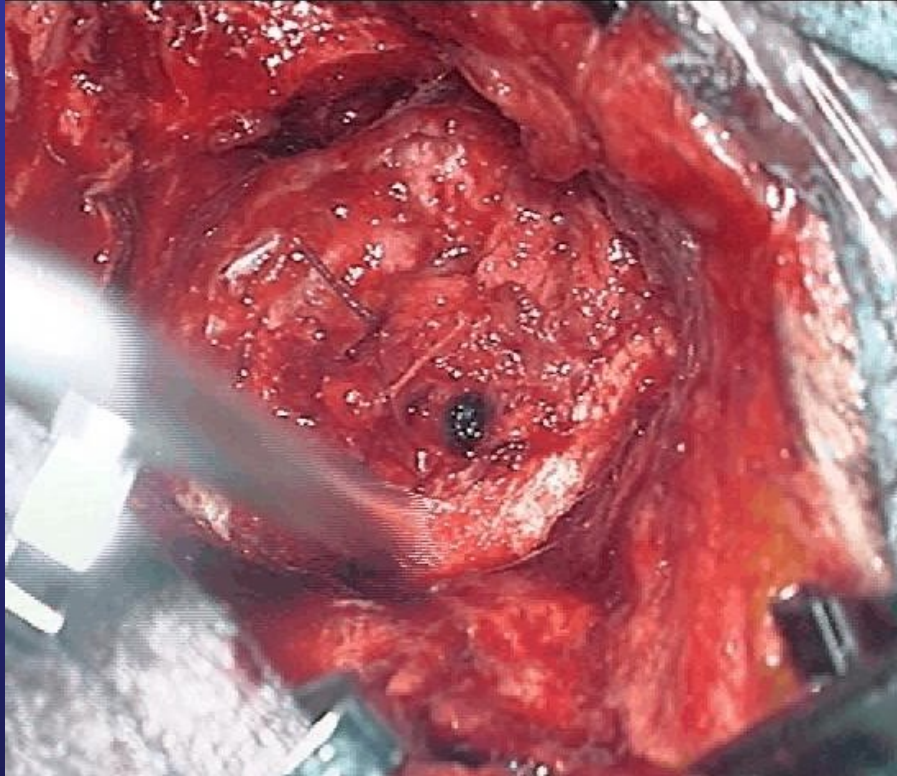
100 consecutive patients who underwent MVD surgeries for hemifacial spasm or trigeminal neuralgia at our Institute were enrolled into this study



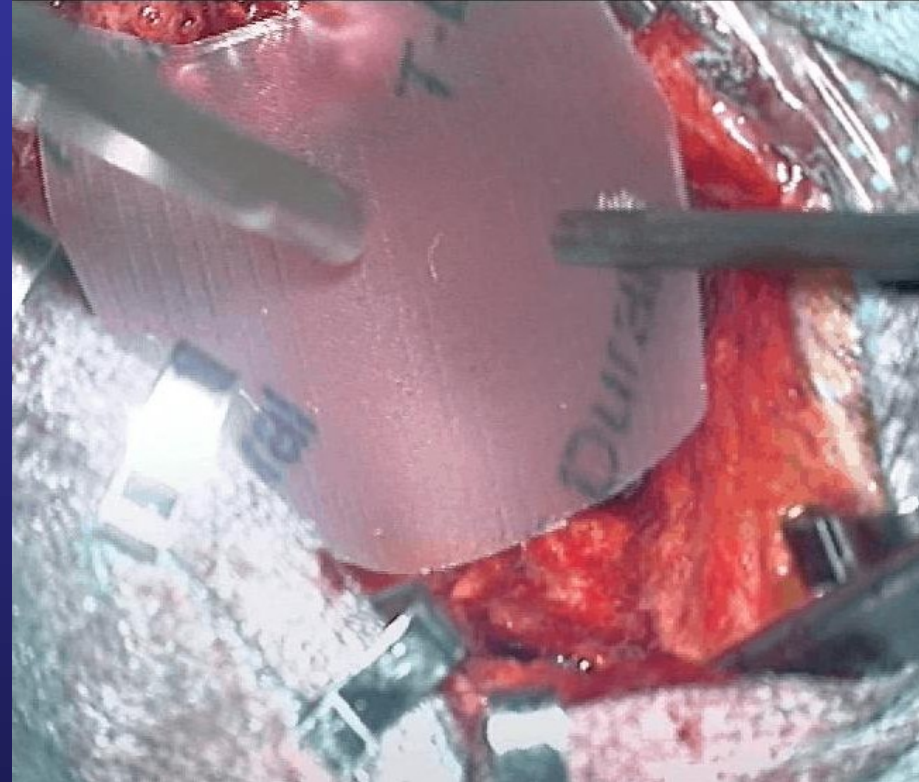
**50 cases:  
no adhesive material**

**50 cases:  
TPD**

# Intraoperative images

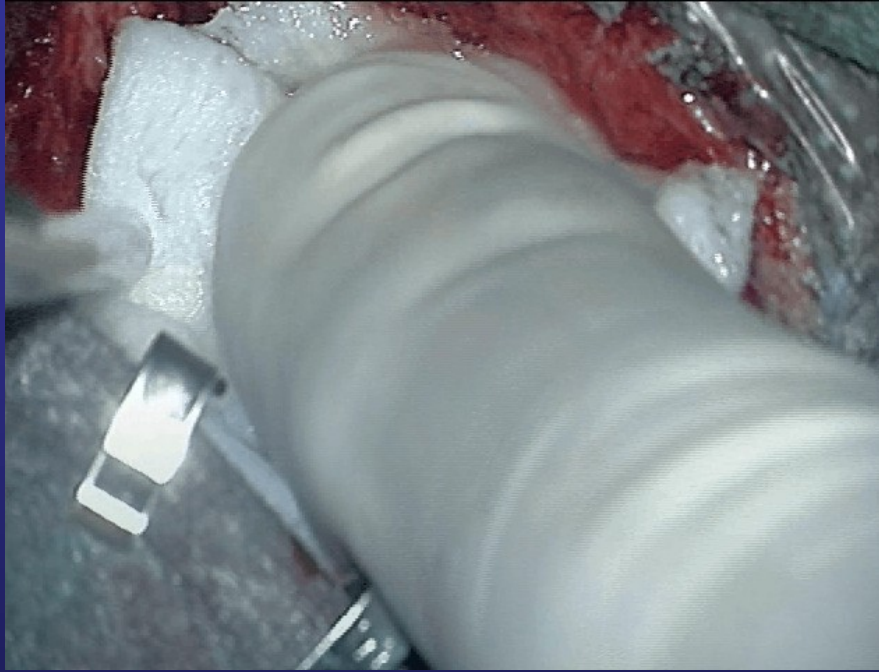


Microsuture with interposition of Muscle fragments (standard closure)

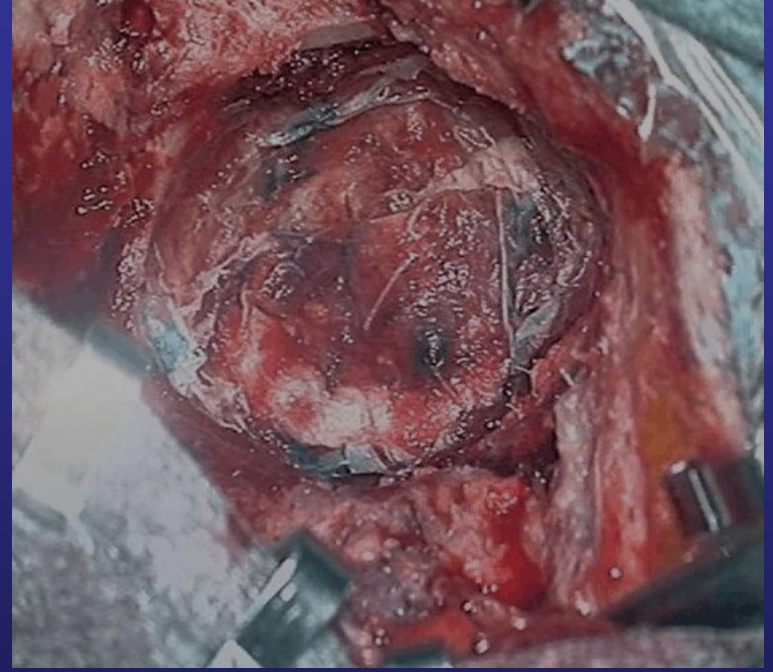


T-dural placement

# Intraoperative images



**Wet cottonoids and 2 minutes digital compression to obtain T-dural adhesion**



**Final result after T-dural adhesion with watertight closure**

# Results

## STANDARD CLOSURE

(microsuture  
with interposition of  
muscle fragments)

CSF leaks: 2

(Both required surgical revision after  
failure of 4 days of spinal drainage)

Infection: 1

## STANDARD CLOSURE + T-DURAL

(microsuture with  
interposition of muscle  
fragments + t-dural)

CSF leaks: 0

Infection: 1

# Conclusions

- Despite the lack of any statistically significance between the two groups, this new adhesive material seems to be a promising way to prevent CSF leaks
- Further investigations on a larger number of patients and high risk surgical procedures for CSF leak still need to be performed