



AANS Annual Scientific Meeting
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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

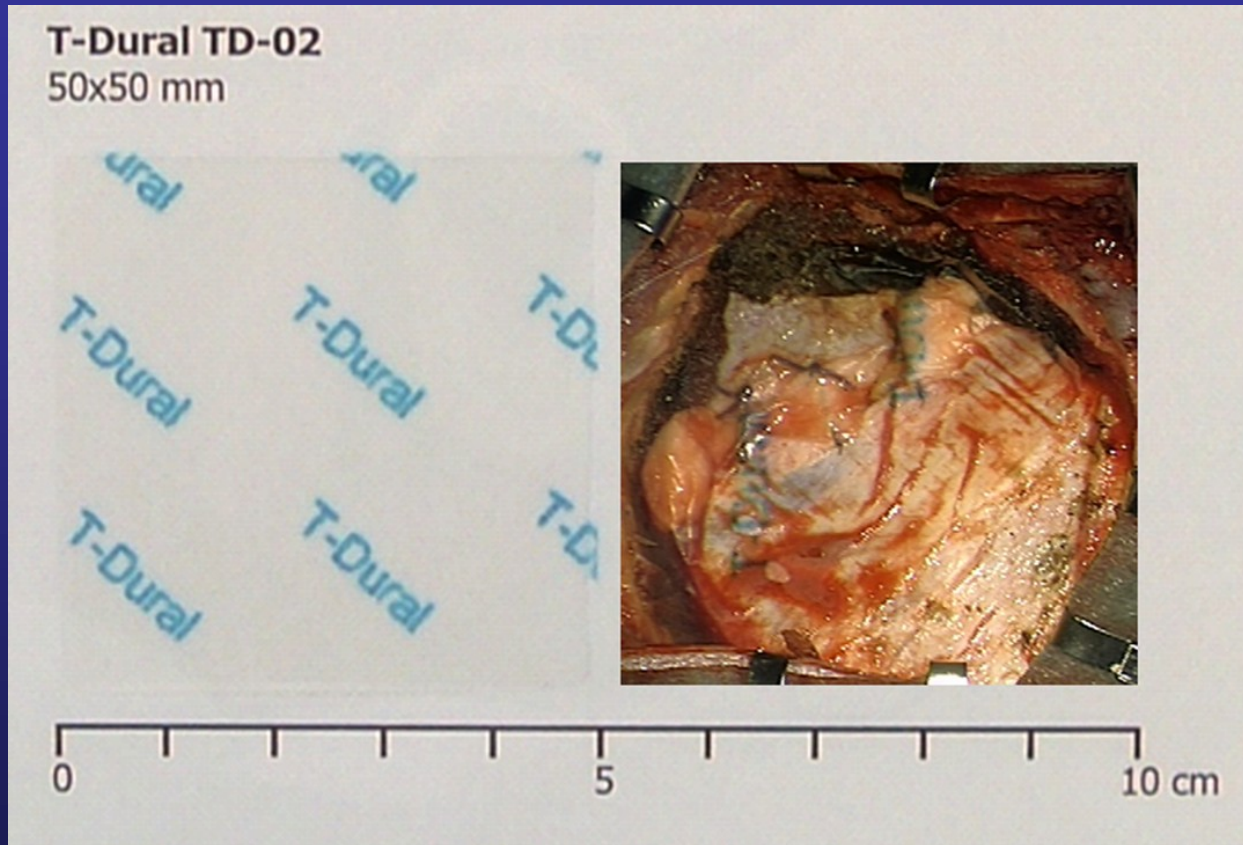
Ferrolì P, Angius D, Acerbi F, Tringali G, Broggi M,
Broggi G, Franzini A

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Milano, Italy

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

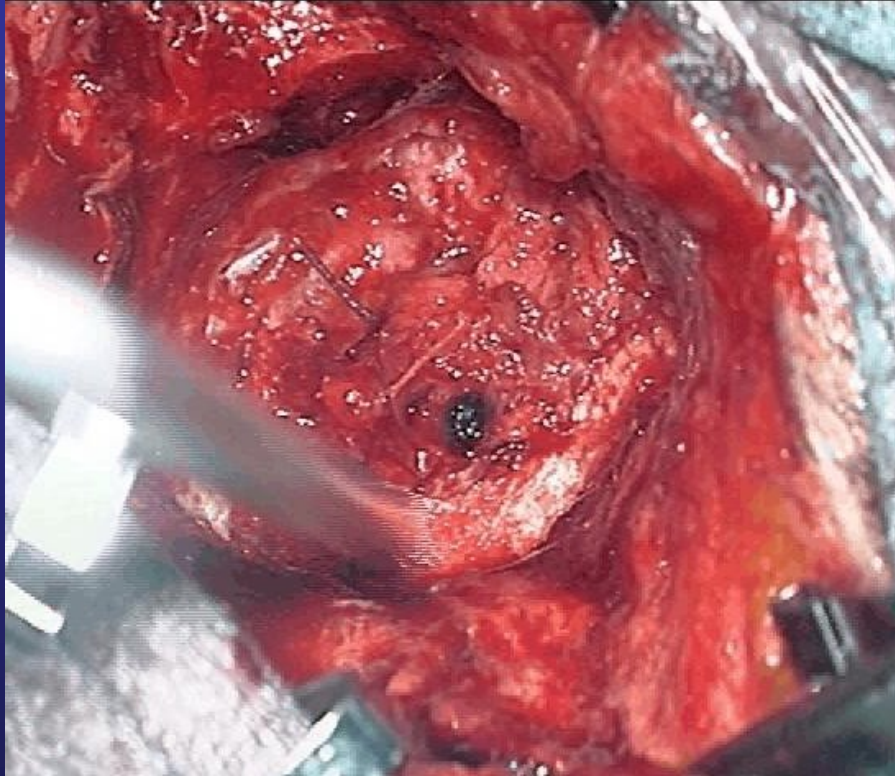
100 consecutive patients who underwent MVD surgeries for hemifacial spasm or trigeminal neuralgia at our Institute were enrolled into this study



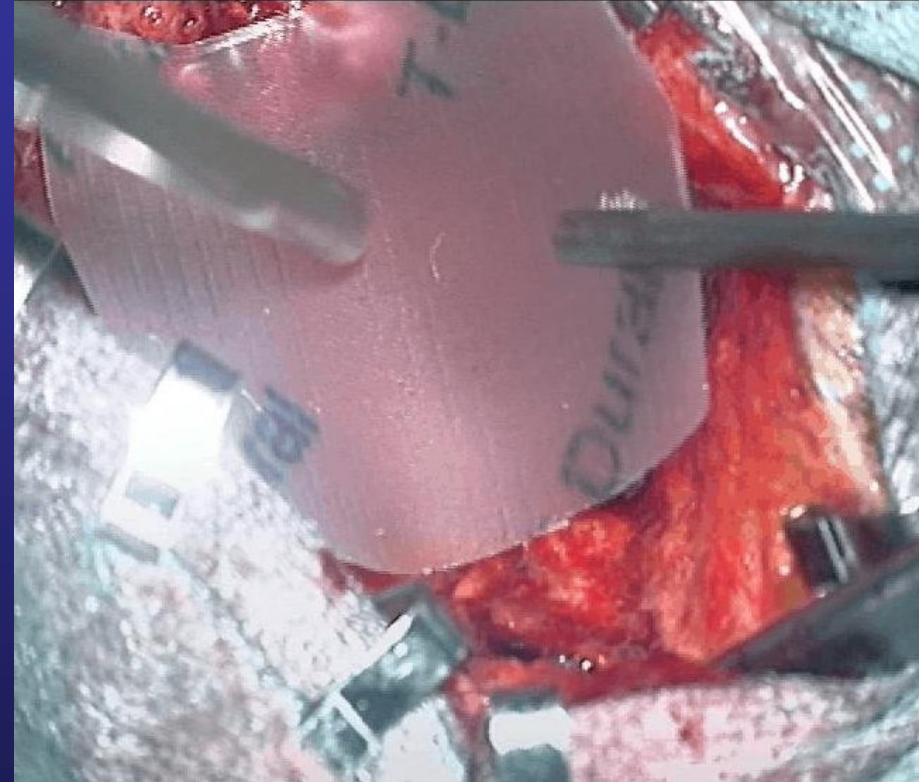
**50 cases:
no adhesive material**

**50 cases:
TPD**

Intraoperative images

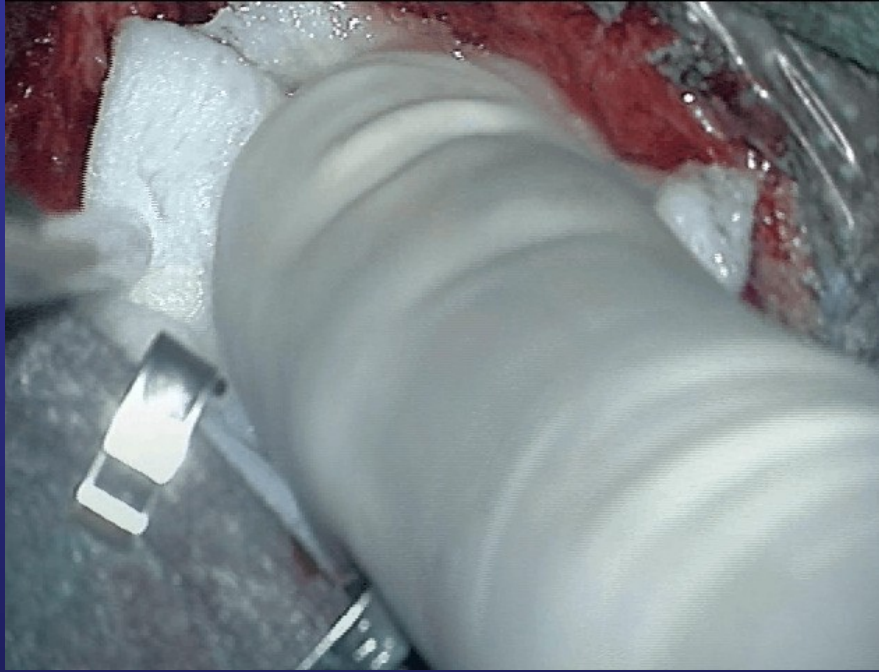


Microsuture with interposition of Muscle fragments (standard closure)

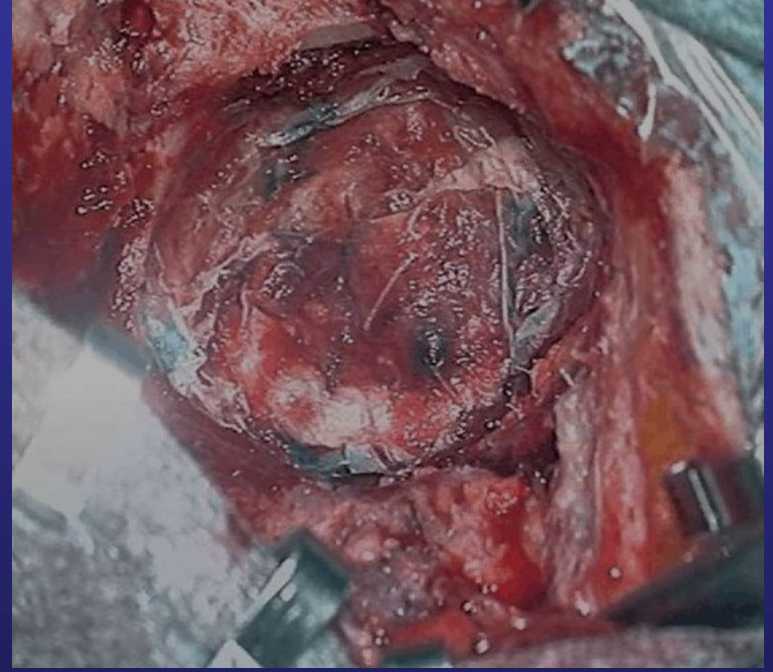


T-dural placement

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**