

ADHESIVE SEALANT BIOMATERIALS

Clinical Series

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Use of TissuePatchDural™ for Dura sealing in a patient with recurrent high grade glioma.

Pre-operative status

A 31 year old patient, who was previously operated for a right frontal grade II glioma, underwent surgery for a recurrent tumour. Preoperative MRI workup showed signs of potential malignisation.

Surgical procedure

The patient was positioned supine with head turned to the left. The original craniotomy was slightly enlarged. The dura was visibly thinned as a consequence of the previous surgery. The dura was reflected and the tumour removed using neuronavigation and electrophysiological monitoring of the motor tract to maximize the extent of resection towards the motor strip. The resection cavity was lined with Reso-cell™. At the end of the procedure, the dura was closed using continuous sutures. An autologous galea patch was used to close a larger dural defect (figure 1). Intraoperative frozen section revealed malignisation and the patient was expected to undergo postoperative radiation therapy. Therefore the dura should be sealed to prevent potential CSF fistula due to influence of radiation.

Treatment with TissuePatchDural™

A 50×50mm TissuePatchDural™ (TD-04) was used, cut into two sections and applied over the dural closure as per instructions for use, ensuring the 'TissuePatch' logo was readable. The patch was also applied onto the bony borders of the craniotomy to form a complete seal. During placement, the patch rapidly conformed to the contours of the underlying tissues. The patch provided an effective dura seal (figure 2).



Figure 1. Dura closed with continuous sutures.
Arrow is pointing on autologous galea patch.

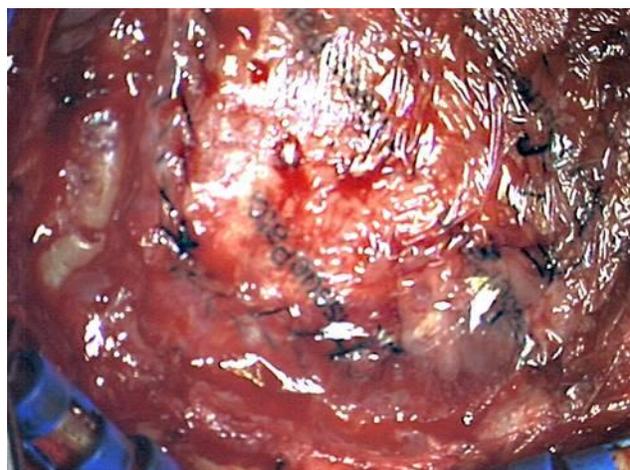


Figure 2. Sutured dural closure treated with TissuePatchDural

Summary

The use of TissuePatchDural™ provided efficient water tight closure of the dura. The postoperative course was uneventful and the patient recovered well. Daily routine wound inspections revealed no pathological findings.

Surgeon opinion of TissuePatchDural™

TissuePatchDural™ is ready to use straight out of the packet and is easy to handle. Being self-adhesive it does not require additional suturing. Overall, usage of the material was simple and most importantly effective in preventing CSF fistula.

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