

ADHESIVE SEALANT BIOMATERIALS

Clinical Series

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Use of TissuePatchDural™ for sealing of the dura following amygdalohippocampectomy.

Pre-operative status

A 41 year old female patient presented with a medical history of refractory complex partial epileptic seizures. MRI diagnostics revealed a sclerosis of the hippocampus on the right side. A right sided, selective amygdalohippocampectomy was performed.

Surgical procedure

A basal temporal craniotomy was carried out in order to enable a subtemporal approach. Neuronavigation technique was used to assist microsurgical resection of the temporomesial structures. Following suturing of the dura, some small cerebrospinal fluid leaks persisted along the suture line (see arrow in Fig 1).

Treatment with TissuePatchDural

A 50 x 50 mm TissuePatchDural (TD-02) was cut to shape in 3 small, longish pieces and was applied per instructions for use. The operation site was dried. During the placement of the material the patch easily conformed to the contours of the underlying soft structures. PEEP was enhanced by 3 mm Hg. After PEEP enhancement, no cerebrospinal fluid leakage could be detected. The TissuePatchDural film provided a fast and effective water-tight seal.

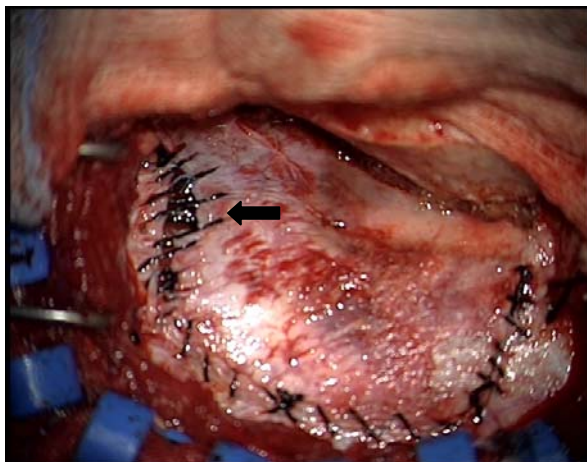


Figure 1 suturing the dura does not result in water-tight closure

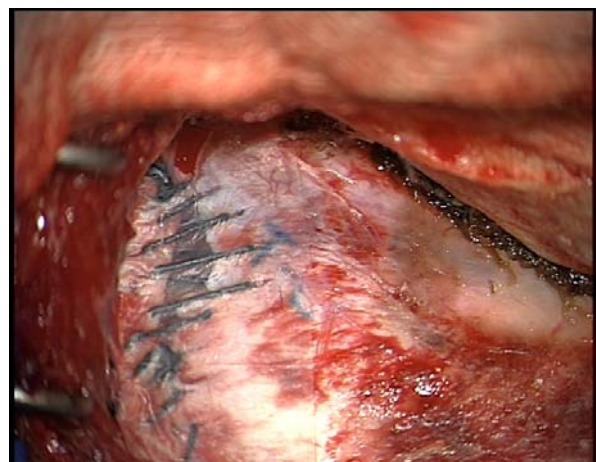


Figure 2 Adjunctive use of TissuePatchDural

Summary

The use of the TissuePatchDural sealant film ensured water-tight closure of the dura. Postoperatively, the patient recovered without any complications. 3 months post operatively the patient was contacted again. No irregularities have been documented.

Surgeon opinion of TissuePatchDural

TissuePatchDural does not require lengthy preparation in advance. The product was easy to use, covering the leaks and being easily conformable to the underlying soft structures. It is important to dry the operation site before applying the material. Also we think that it is important to wait for at least 60 seconds, and then applying soft manual pressure on the material. For small leaks along the sutured Dura, TissuePatchDural is a convenient material providing easy, safe and fast water-tight closure.