

Shimansky et al., describes the experience with application of a TachoComb® sponge gained at the 5th Clinical Department of the Burdenko Neurosurgical Institute.

The study included 176 patients with acoustic neurinomas. At the final stage of surgery, all the patients underwent DM reconstruction with a TachoComb® collagen sponge. CSF leakage occurred in 3 (1.7%) patients, with each of them having Koos grade 4 tumor. One (0.56%) patient had wound liquorrhea, and 2 (1.1%) patients had nasal liquorrhea. CSF leakage was managed by placement of a lumbar drain; postoperative wound revision was not required.

Using the TachoComb® sponge for DM reconstruction in PCF surgery is an effective way to prevent postoperative CSF leakage, provided that the algorithm of manipulations described in the article is followed ¹⁾.

TachoComb has frequently been used for the treatment of both venous and arterial bleeding. However, anaphylactic reactions have been reported after repeated use of hemostatic agents containing aprotinin such as TachoComb. Because aprotinin is also associated with risk of renal failure, manufacturing of a new product-TachoSil-which lacks aprotinin seems a logic evolvement. Furthermore, thrombin on the TachoSil material has been changed from bovine in TachoComb to human origin. These changes in the biochemical composition could lead to changes in the hemostatic performance. Therefore, we aimed to disclose any difference in hemostatic efficacy of the two products. METHODS: Twelve 70-kg pigs had controlled insults to the thoracic aorta with and without heparin administration. The iatrogenic lesion was randomly covered with either TachoComb or TachoSil and the time to hemostasis was measured. RESULTS: Time to hemostasis when using TachoSil compared with TachoComb was increased 14% (-13% to 48%) with heparin and 10% (-26% to 66%) without heparin (mean +/- 95% confidence interval; $p > 0.05$ in both). Time to hemostasis with heparin administration increased significantly in both treatments: TachoComb 80% (26%-156%) ($p = 0.001$) and TachoSil 75% (18%-158%) ($p = 0.005$). CONCLUSION: We found neither statistical nor clinical evidence that TachoComb should have better hemostatic properties than does TachoSil in arterial bleeding. Both TachoSil and TachoComb can be used with heparin administration, but significant prolongation of the time to hemostasis is to be expected for both products. TachoSil should be preferred to TachoComb due to the potential lower risk of side effects when using the former.

¹⁾

Shimansky VN, Poshataev VK, Odamanov DA, Shevchenko KV. [A technique of TachoComb application in dura mater reconstruction in surgery for posterior cranial fossa tumors]. Zh Vopr Neurokhir Im N N Burdenko. 2016;80(5):85-89. Russian. PubMed PMID: 27801403.

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