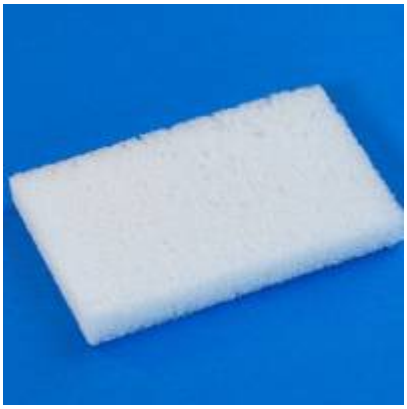
Gelatin Sponge



see Spongostan.

see Gelfoam.

see also Hemostat.

Expanding the range of medical sponges and researching new excipients for their manufacture are a promising area of modern medicine and pharmacy [1].

Gelatin sponge is a non-antigenic protein that can absorb 45 times its weight in blood, and, when wet, is plastered to the irregularities of the bleeding surface. It enables the repair of torn veins, such as the superior sagittal sinus, without compromising the patency of the vessel [2].

Many ablative procedures are effective for hemifacial spasm (HFS) (including sectioning of divisions of the facial nerve), however, this leaves the patient with some degree of facial paresis. The current procedure of choice for HFS is microvascular decompression (MVD) wherein the offending vessel is physically moved off of the nerve, and a sponge (e.g. Ivalon®, polyvinyl formyl alcohol foam) is interposed as a cushion.

For Chang et al. from the Department of Neurosurgery Xinhua Hospital in hemifacial spasm (HFS) patients undergoing microvascular decompression (MVD) , using Teflon plus gelatin sponge can remarkably reduce the incidence of recurrence, facial palsy, and hearing loss compared with those using Teflon alone [3].

A study proves that, during the dural closure, placing a thin layer of gelatin sponge in the subdural space is a safe and effective method for preventing meningocerebral adhesions [4]

1)
Pavliuk B, Chubka M, Hroshovyi T, Stechyshyn I. Characteristics of structured medical hemostatic sponges as a medical devices for stop bleeding and for close the wound. Pol Merkur Lekarski. 2020 Dec 22;48(288):422-426. PMID: 33387430.
2)
Signorelli F, Montano N. Use and Efficacy of Hemostats in Neurosurgery. Surg Technol Int. 2020 Nov 28;37:414-419. PMID: 32944921.
3)
Chang B, Tang Y, Wei X, Li S. A New Application of Gelatin Sponge in the Treatment of Hemifacial Spasm by Microvascular Decompression: A Technical Note. J Neurol Surg A Cent Eur Neurosurg. 2021 May 19. doi: 10.1055/s-0040-1720994. Epub ahead of print. PMID: 34010981.
4)
Gonzalez-Lopez P, Harput MV, Türe H, Atalay B, Türe U. Efficacy of placing a thin layer of gelatin sponge over the subdural space during dural closure in preventing meningo-cerebral adhesion. World Neurosurg. 2015 Jan;83(1):93-101. doi: 10.1016/j.wneu.2014.02.032. Epub 2014 Feb 19. PubMed PMID: 24560706.

From:
https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki**

Permanent link:
https://neurosurgerywiki.com/wiki/doku.php?id=gelatin_sponge

Last update: **2024/06/07 02:57**