

Foreign body granuloma

In cranial surgery, different [foreign body](#) (FB) materials are used and may be left intentionally or unintentionally in the surgical field after closure, inducing a foreign body granuloma (FBG). This is a rare complication in neurosurgery, but it may be a diagnostic dilemma with sometimes medico-legal implications.

Akhaddar et al. from the Department of Neurosurgery, Avicenne Military Hospital of [Marrakech](#), Mohammed V University in [Rabat](#), Morocco. Department of Radiology, Hacettepe University School of Medicine, [Ankara](#), Department of Neurosurgery, Adnan Menderes University School of Medicine, [Aydın](#), Turkey, performed a systematic review of the English-language literature between 1965 and 2018, and found a total of 77 articles concerning 100 cases of FBG caused by retained material located within the cranium or surrounding soft tissues.

There were 60 females and 40 males, with ages ranging from 1 to 77 years. Most initial diagnoses were cranial/intracranial tumors, trigeminal neuralgia, hemifacial spasm, intracranial aneurysm, hydrocephalus, head injury, infectious disease, and non-traumatic intracerebral hematoma. Interval from the causative surgical operation to presentation of the FBG ranged from 2 weeks to 20 years. Various radiological modalities were used and histological study confirmed the presence of FBG in all patients. Intentional FB was used and left in 77 patients, and unintentional FB was found postoperatively in 23 patients. Associated infection was found in 13 patients. A complete recovery was seen in 47.6% of patients with sufficient data.

Despite being unusual, a retained FBG should be considered in the differential diagnosis of any patient following cranial surgery. A history of surgery, clinical symptoms, physical examination findings, laboratory results, and the use of appropriate neuroimaging explorations may provide a correct preoperative diagnosis. In addition, the unintentional retained FBs are preventable errors in the operating room ¹⁾.

Gao et al. reported a case of Surgicel™-related granuloma that was misdiagnosed as a tumor 1 month after hysterectomy and right oophorectomy ²⁾. These previous cases of granuloma formation in organs outside the nervous system were ultimately found to be due to chronic inflammatory reactions. Overactivated giant cells assembled around the Surgicel™, forming the chronic giant-cell granuloma ³⁾.

¹⁾
Akhaddar A, Turgut AT, Turgut M. Foreign body granuloma following cranial surgery: A systematic review of published cases. *World Neurosurg.* 2018 Sep 26. pii: S1878-8750(18)32189-2. doi: 10.1016/j.wneu.2018.09.143. [Epub ahead of print] Review. PubMed PMID: 30267951.

²⁾
Gao HW, Lin CK, Yu CP, Yu MS, Chen A. Oxidized cellulose (Surgicel) granuloma mimicking a primary ovarian tumor. *Int J Gynecol Pathol.* 2002;12:422–423. doi: 10.1097/00004347-200210000-00015.

³⁾
Saeidiborjani HR, Fakheri T, Iizadi B. Intracranial [foreign body granuloma](#) simulating brain tumor: a case report. *J Res Med Sci.* 2011;12:358–360.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=foreign_body_granuloma

Last update: **2024/06/07 02:59**

