

Carmustine wafer complications

A study showed that VO during surgery with [BCNU wafer](#) implantation might not influence the occurrence of postoperative AEs. If VO happens, BCNU wafer implantation can be performed safely with accurate closing of the ventricle ¹⁾

Implantation of carmustine wafers has been associated with increased operative site complications in some series, but post-operative haematoma is not routinely reported.

A retrospective audit of surgical site haematoma after tumour resection and insertion of carmustine wafers in two neurosurgical units in the UK (University Hospital of North Staffordshire, Stoke-on-Trent, March 2003 - July 2012; Wessex Neurological Centre, Southampton, October 2005 - January 2013) in 181 operations of 177 patients showed 8 (4.4%) patients. All presented in a delayed fashion on or after Day 2 post-operatively. In contrast, acute operative site haematoma was present in 4/491 (0.81%) of patients who underwent resection without gliadel wafer insertion.

In contrast to the expected timing of bleeding following intracranial tumour resection, all carmustine wafer patients who experienced haemorrhage presented in a delayed fashion on or after Day 2 post-operatively. The causative factors for universally delayed post-operative haematoma after carmustine wafer insertion are unclear and further studies are required to characterize this phenomenon ²⁾.

Case reports

Nakase et al. report a case of a 56-year-old woman admitted to the hospital for [status epilepticus](#). Three months before hospitalization, the patient underwent gross total removal of a glioblastoma with BCNU wafer implantation in the left parietal lobe. The cavity was subsequently lined with five BCNU wafers. After admission, magnetic resonance imaging(MRI) showed cyst formation accompanied by strong edema, with no recurrence of glioblastoma. She was initially administered antiepileptic drugs and glycerol with betamethasone, after which her seizures stopped but recurred one month later due to a decrease in betamethasone. The BCNU wafers were removed four months after the initial surgery, after which the seizures completely stopped. Histopathological examination of the cavity indicated the presence of inflamed tissue and no recurrence of glioblastoma. Neurosurgeons should be aware of the possibility of cyst formation after BCNU wafer implantation for malignant gliomas. In this manuscript, we provide a case presentation and a review of the literature ³⁾.

¹⁾

Matsuda R, Maeoka R, Tokuda N, Nakazawa T, Morimoto T, Kotsugi M, Takeshima Y, Tamura K, Yamada S, Nishimura F, Nakagawa I, Park YS, Nakase H. Intraoperative ventricular opening has no effect on complication development following BCNU wafer implantation for malignant glioma. *World Neurosurg.* 2022 Dec 24:S1878-8750(22)01796-X. doi: 10.1016/j.wneu.2022.12.090. Epub ahead of print. PMID: 36574919.

²⁾

Shah RS, Homapour B, Casselden E, Barr JG, Grundy PL, Brydon HL. Delayed post-operative haemorrhage after carmustine wafer implantation: a case series from two UK centres. *Br J Neurosurg.* 2013 Dec 9. [Epub ahead of print] PubMed PMID: 24313309.

³⁾

Nakase K, Matsuda R, Nishimura F, Nakamura M, Motoyama Y, Park YS, Nakase H. [A Case of

Symptomatic Cyst Formation after BCNU Wafer Implantation for Glioblastoma]. No Shinkei Geka. 2015 Aug;43(8):747-52. doi: 10.11477/mf.1436203113. Japanese. PubMed PMID: 26224470.

From:

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

Permanent link:

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

Last update: **2024/06/07 02:51**

