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Remote hemorrhagic complications of glioma surgery: Systematic review of the literature and report of a case of distant wounded glioma syndrome, a rare neurosurgical complication

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Abstract

Background: Hemorrhage following glioma resection usually happens in tissues that were surgically manipulated. Remote bleeding is a rare and serious complication that is still poorly understood. Distant wounded glioma syndrome is a special type of this complication, where bleeding happens in a glioma lesion that was not surgically manipulated.

Methods: A systematic review was conducted on the MEDLINE and Scielo databases. A new case of distant wounded glioma syndrome was reported and added to the results.

Results: 501 articles were identified using the search strategy and were screened. We reviewed the full text of 58 articles, of which 4 met the eligibility criteria. Including our new case, only 5 articles reported hemorrhage in locations remote from the resection site, with a total of six patients.

Conclusions: Remote bleeding, including distant wounded glioma syndrome, is a rare complication that should be considered in cases of postoperative deterioration, especially in cases of symptoms not congruent with the operated site.

Keywords: distant wounded glioma syndrome; glioma; glioma surgery; neurosurgery; neurosurgical complication.

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