

Title:

Sodium fluorescein guided surgery for high grade glioma – a 3-year review

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Abstract:***Objective:***

To investigate cases of high grade glioma with sodium fluorescein guided resection and analyze the difference in outcome between sodium fluorescein-guided surgery and image-guided surgery in high grade glioma

Method:

This is a 3-year retrospective review of the use of sodium fluorescein guidance in high grade glioma resection in Queen Elizabeth Hospital from 2019-2021. Patient's demographics and tumour characteristics were collected. Primary outcome was defined by extent of resection derived from pre- and post-operative MRI by semi-automatic volumetric assessment. The overall survival and presence of neurological deficit after operation were also assessed as part of patient's outcome.

Result:

About 30 patients with high grade glioma resection done were included. The extent of resection was 80% with fluorescein guidance and 70% with image guidance only. No patients reported any local or systemic side effects after fluorescein injection. There is no significant difference in rate of post-operative neurological deficit.

Conclusion:

Intraoperative usage of sodium fluorescein guidance in high grade glioma resection is effective and safe in increasing the extent of resection.