Long-term survival in glioblastoma: a case report with complementary herbal therapy

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Case Report

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Abstract

Background:

Glioblastoma (GBM) is the most aggressive primary brain tumour in adults, with a median survival of approximately 12–18 months despite standard multimodal treatment [1, 2]. Long-term survival remains rare.

Case presentation:

We report the case of a female patient initially diagnosed with diffuse astrocytoma (WHO grade II) in 2012, which progressed to glioblastoma in 2015. Following partial surgical resection, radiotherapy, and temozolomide chemotherapy, the patient received complementary herbal therapy consisting of five plant-based preparations. Serial magnetic resonance imaging (MRI) demonstrated gradual tumour regression, followed by complete radiological remission. The patient remained progression-free for several years. In 2025, more than 10 years after the initial diagnosis, a small recurrence was detected and surgically treated, followed by reintroduction of combined therapy, after which imaging demonstrated disease stabilization.

Contextualization:

This case is interpreted in the context of a previously published case series of five glioblastoma patients treated with similar herbal protocols, in which prolonged survival and tumour regression were observed [7].

Conclusion:

This case represents an unusual long-term survival and highlights the need for further investigation of integrative therapeutic approaches in glioblastoma.

1. INTRODUCTION

Glioblastoma (GBM) is the most common and aggressive primary malignant brain tumour in adults, characterized by rapid progression and poor prognosis [1]. Despite advances in neurosurgery, radiotherapy, and chemotherapy with temozolomide, median survival remains limited to approximately 12–18 months [2].

Secondary glioblastomas, which arise from lower-grade astrocytomas, may have a somewhat different clinical course but are still associated with poor outcomes [3].

In recent years, complementary and integrative approaches have attracted increasing attention, particularly those involving plant-derived compounds with potential biological activity [4–6]. However, clinical evidence supporting their role in glioblastoma remains limited.

In 2018, a case series of five glioblastoma patients treated with complementary herbal therapy demonstrated prolonged survival and, in some cases, tumour regression [7].

However, long-term follow-up exceeding 10 years, as well as detailed documentation of late recurrence patterns, remain scarce.

Here, we present a case of long-term survival in glioblastoma and interpret it in the context of previously published findings.

2. CASE PRESENTATION

A 43-year-old female patient presented in June 2012 with headaches localized in the left orbital region. Magnetic resonance imaging (MRI) revealed a lesion in the left temporal lobe consistent with diffuse astrocytoma (WHO grade II).

Follow-up imaging demonstrated tumour progression over the next three years. In 2015, after radiological and clinical worsening, the patient underwent radiotherapy (60 Gy), followed by partial surgical resection. Histopathological analysis confirmed glioblastoma. Immunohistochemistry showed IDH-1 wild-type status and p53 positivity.

Postoperatively, chemotherapy with temozolomide was initiated and administered in 12 cycles. In parallel, complementary herbal therapy was introduced, consisting of five plant-based preparations administered daily, the composition of which has been described in detail in our previous publication and is not repeated here [7].

Follow-up MRI scans during 2016 demonstrated gradual regression of tumour burden. By 2017 and 2018, imaging showed no radiological evidence of active disease, with only postoperative changes remaining. These findings are illustrated in chronological MRI images Fig. 1.

The patient remained clinically stable for several years, with regular imaging confirming sustained remission.

In September 2025, more than 10 years after the initial diagnosis, MRI revealed a small contrast-enhancing lesion (approximately 6 mm), consistent with tumour recurrence. The recurrence is shown in Fig. 2.

The patient underwent surgical resection in November 2025, followed by temozolomide therapy. Complementary herbal therapy was reintroduced.

Follow-up MRI in February 2026 demonstrated stabilization of the disease, with no evidence of progression. Follow-up imaging demonstrating stabilization is presented in Fig. 3.

At the time of writing, the patient remains clinically stable.

3. RELATIONSHIP TO PREVIOUSLY PUBLISHED CASE SERIES

The present case shares several key characteristics with patients described in our previously published case series [7]:

- use of five herbal preparations administered daily
- combination with standard oncological treatment
- radiological monitoring of tumour response
- prolonged survival exceeding expected outcomes

In the previous study, three patients achieved complete radiological remission, one demonstrated stable disease, and one survived 48 months despite recurrence [7].

The current case extends these observations by demonstrating:

- survival exceeding 10 years
- prolonged radiological remission
- late recurrence followed by disease stabilization
- response after reintroduction of combined therapy

Together, these findings may suggest a pattern that warrants further investigation in a larger clinical context.

4. DISCUSSION

Long-term survival in glioblastoma is rare, particularly in cases involving malignant transformation from lower-grade gliomas [2, 3].

Several factors may contribute to prolonged survival, including tumour biology, molecular characteristics, extent of resection, and response to therapy [1–3]. In this case, despite IDH-wild type status, which is generally associated with poorer prognosis, the patient experienced an unusually favourable clinical course.

Complementary herbal therapy was used alongside standard oncological treatment throughout the disease course. Plant-derived compounds, including those from the genus *Artemisia*, have demonstrated biological activity in experimental settings, including antiproliferative effects and potential synergy with radiotherapy and chemotherapy [4–6].

However, it is important to emphasize that this report describes a single case, and no causal relationship between complementary therapy and clinical outcome can be established.

When interpreted in the context of previously published cases [7], this report contributes to a growing body of observational evidence suggesting that integrative approaches may have a role worthy of further investigation.

The occurrence of late recurrence after prolonged remission, followed by stabilization after reintroduction of therapy, further highlights the unusual clinical trajectory.

5. CONCLUSION

This case report describes long-term survival exceeding 10 years in a patient with glioblastoma treated with standard oncological therapy in combination with complementary herbal therapy.

In the context of previously published findings [7], this case highlights the need for systematic clinical investigation of integrative approaches in glioblastoma.

Declarations

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Ethical approval was not required for this case report in accordance with institutional and national guidelines.

CONSENT FOR PUBLICATION

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

DATA AVAILABILITY

Data are available from the corresponding author upon reasonable request.

FUNDING

The author received no specific funding for this work.

AUTHOR CONTRIBUTIONS

DT conceived the study, collected the data, and wrote the manuscript. The author read and approved the final manuscript.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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Figures

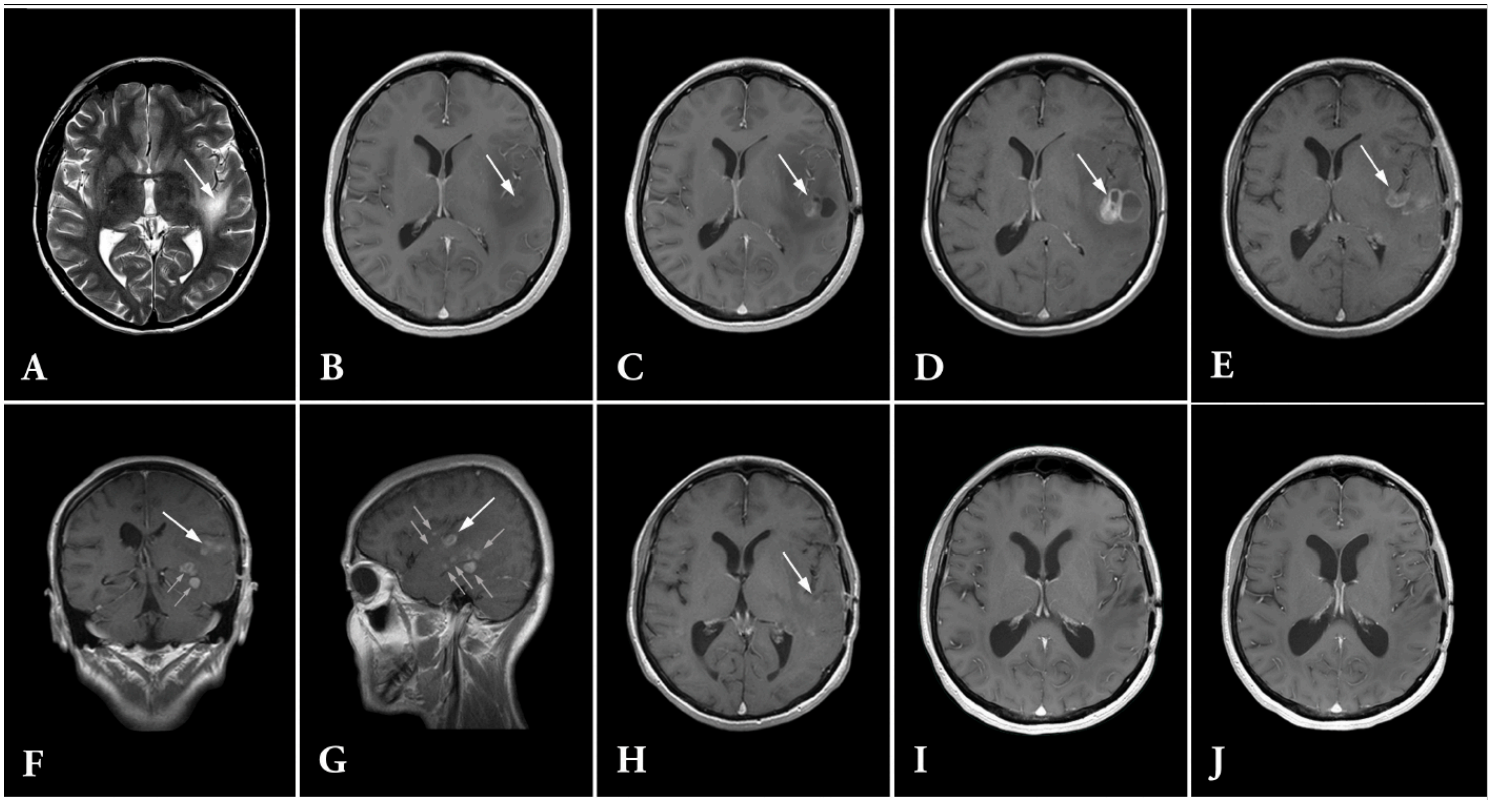

Figure 1

Chronological MRI findings demonstrating tumour progression followed by radiological regression.
(A) 29 June 2012, initial scan.
(B) 13 June 2014, tumour diameter 9 mm.
(C) 30 January 2015, tumour diameter 13 mm.
(D) 23 June 2015, tumour diameter 18 mm.
(E–G) 27 August 2015, postoperative residual tumour (large arrow) with surrounding secondary lesions (small arrows).
(H) 10 February 2016, regression of tumour.
(I) 06 June 2017, postoperative scar without evidence of tumour.
(J) 13 June 2018, normal findings with no evidence of disease.

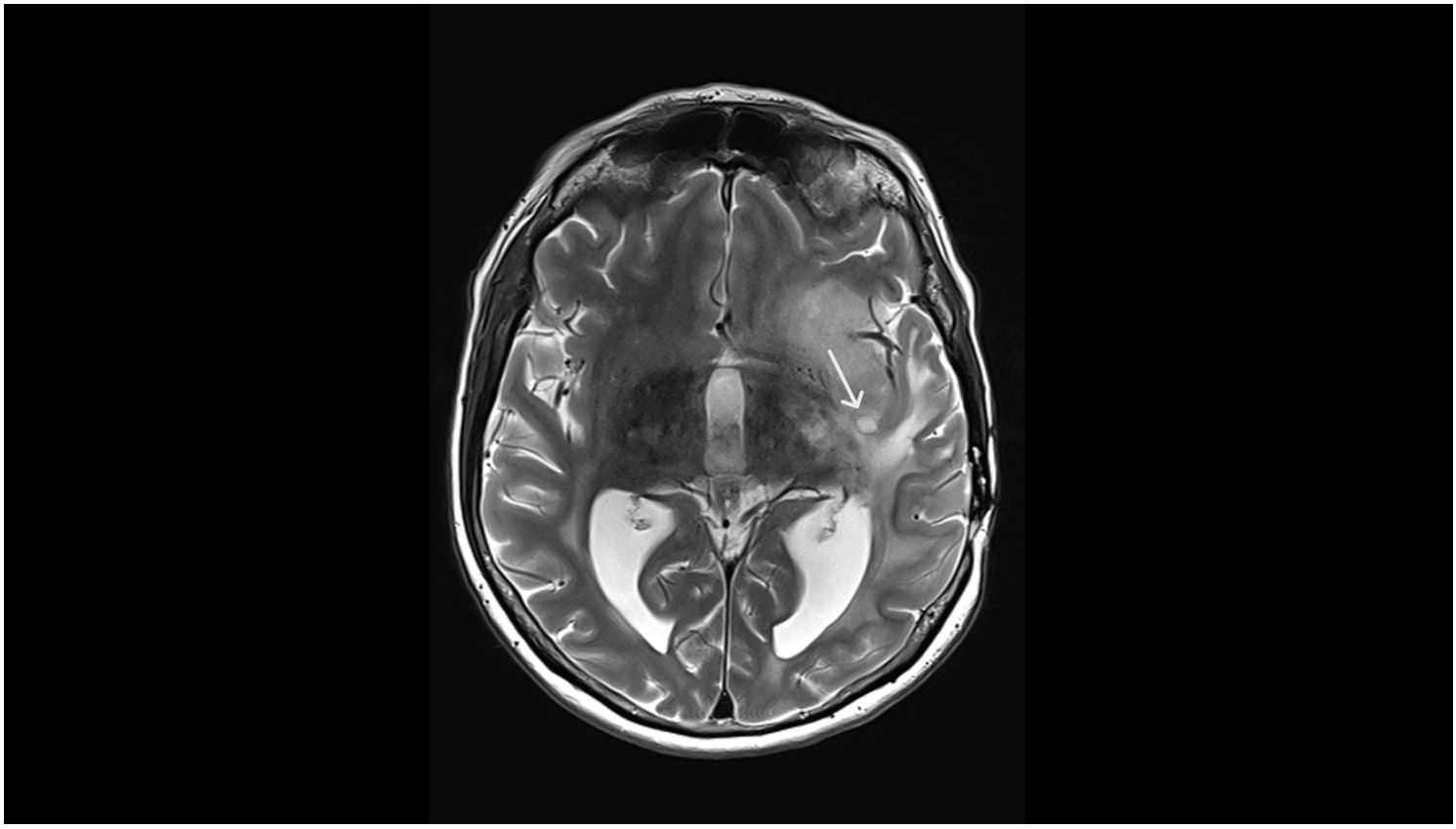

Figure 2

MRI scan performed on 30 September 2025 demonstrating tumour recurrence in the left temporal lobe (arrow), presenting as a small contrast-enhancing lesion measuring approximately 6 mm.

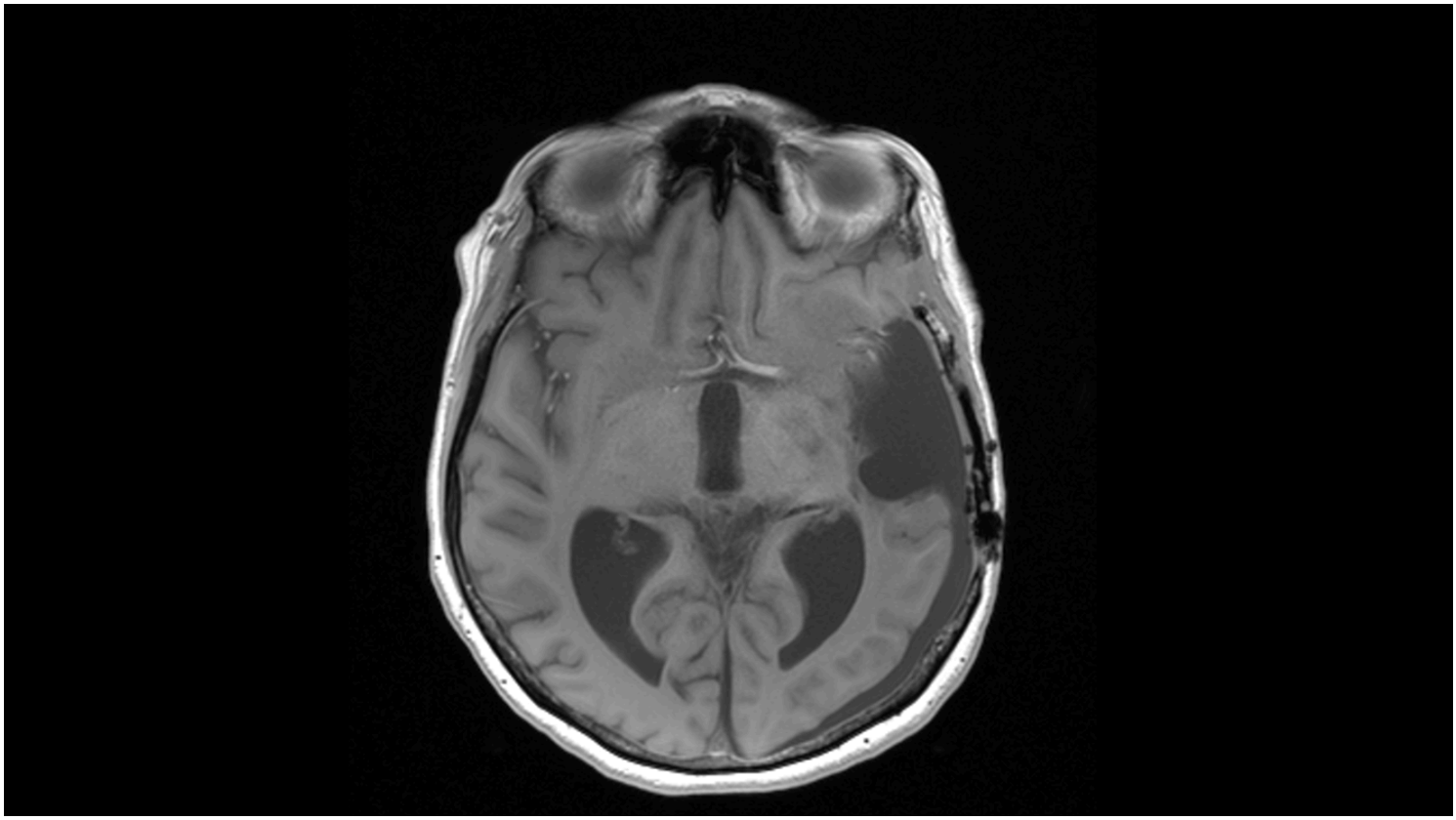

Figure 3

Follow-up MRI performed on 5 February 2026 after surgical resection, temozolomide chemotherapy, and reintroduction of complementary herbal therapy, demonstrating stabilization of the disease with no radiological evidence of active tumour.