Gyroscopic Stereotactic Radiosurgery: Initial Experience of 200 Patients

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Trigeminal Neuralgia Outcomes

Median follow-up = 7.5 months (IQR = 5.25 - 12 months)

Time After SRS (Months)





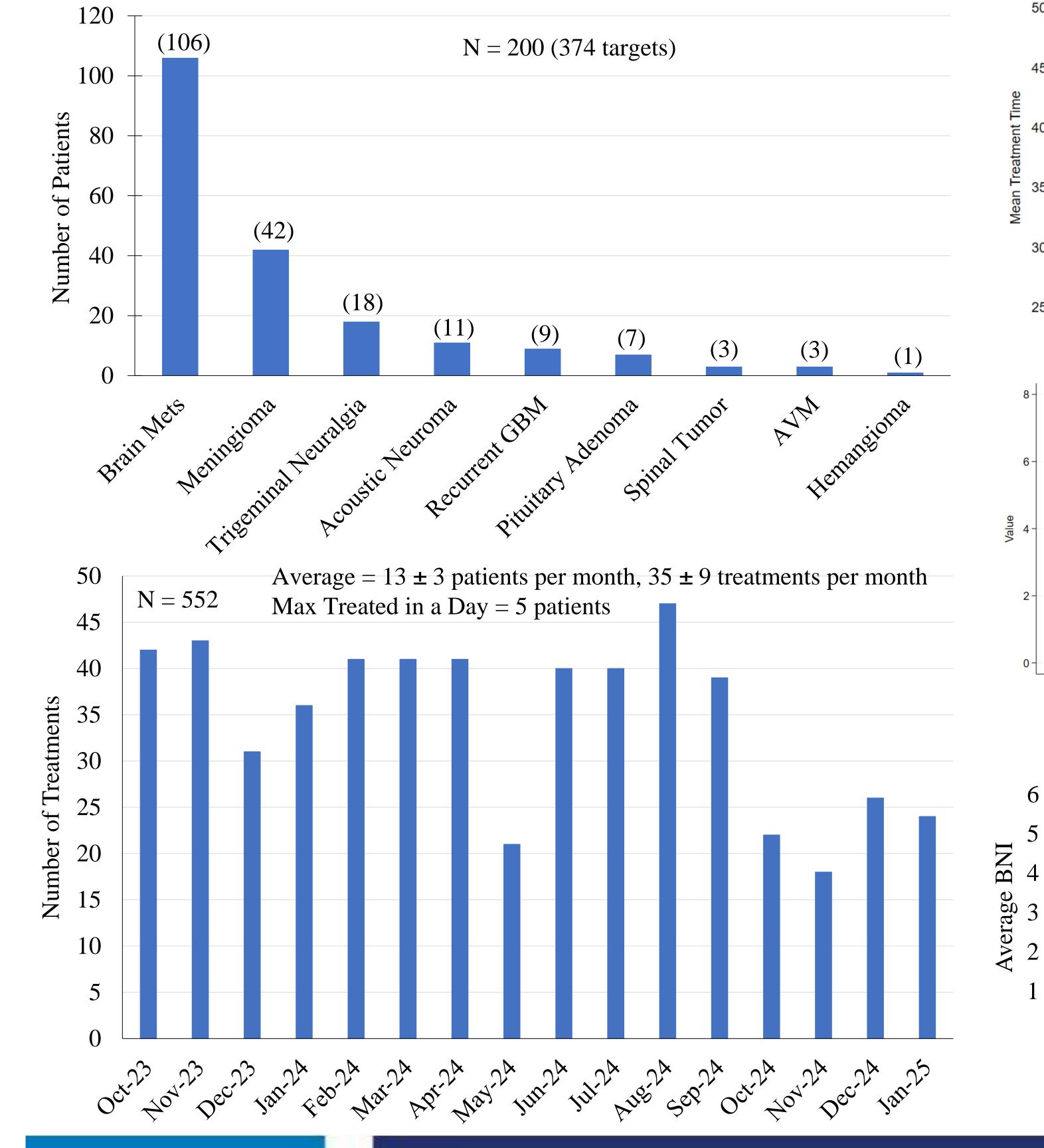
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Objectives

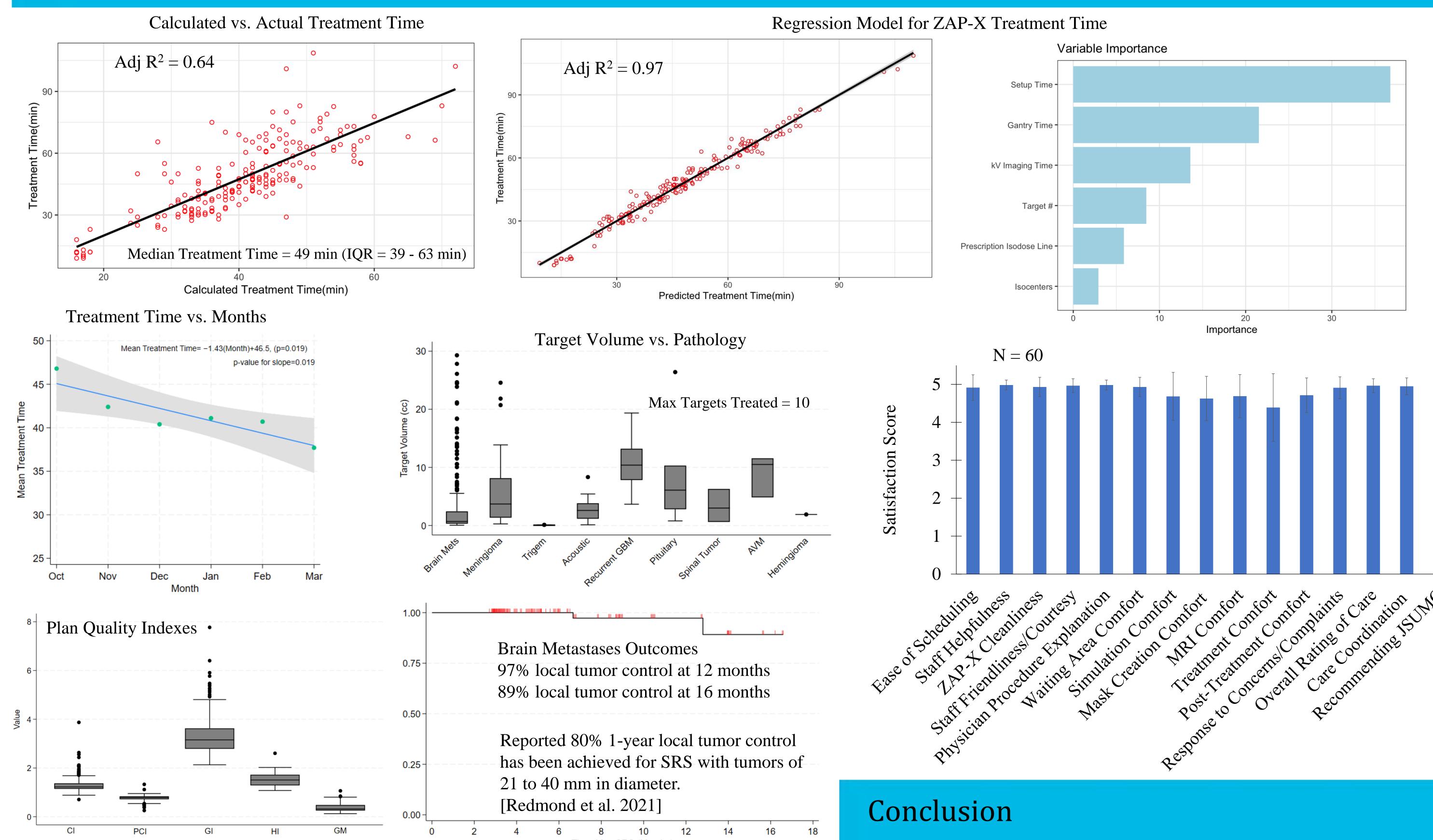
• The ZAP-X stereotactic radiosurgery (SRS) platform is novel regarding its self-shielding system and offers a variety of improvements over traditional linear accelerator systems. We report our initial experience with the first 200 patients treated with gyroscopic radiosurgery with the intention to expand the existing literature on this novel treatment option.

Methods

- 200 patients (374 targets) were treated with ZAP-X SRS from October 2023 to January 2025.
- Patient satisfaction and comfort was gauged with a post-operative questionnaire which utilized a 5-point Likert scale.



Results



75% recurrence-free survival (25% recurrence-rate)

Time After SRS (Months)

GK median recurrence-rate = 23%

[Tuleasca et al. 2019]

CK median recurrence-rate = 27.2%

Linac median recurrence-rate = 29%

• Our initial experience with the use of ZAP-X showed its utility in the treatment of various neurosurgical conditions along with strong patient satisfaction with the treatment. Further treatment data and long-term follow-up is needed to determine its effectiveness as a treatment option for patients.

References

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 (2) Tuleasca C, Régis J, Sahgal A, De Salles A, Hayashi M, ..., Levivier M. Stereotactic radiosurgery for trigeminal neuralgia: A systematic review. Journal of Neurosurgery. 2019.