

## Introduction

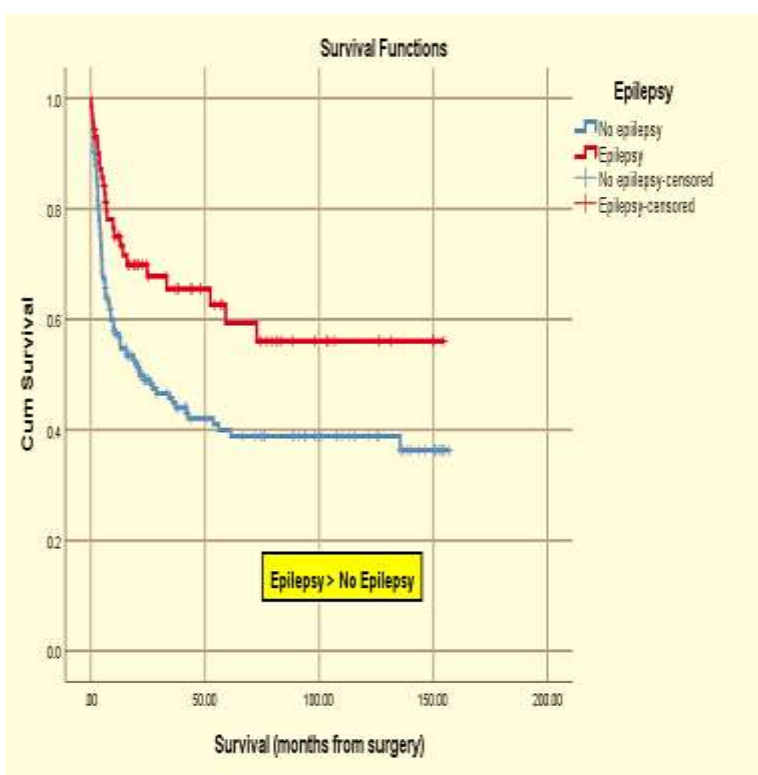
- Seizures are a common and significant symptom in patients with glioma.
- The optimal usage and impact of Anti-seizure medicine (ASM) in control of seizures, quality of life and progression of disease is still unclear.
- We evaluate the pattern of ASM usage and impact of seizure and ASM on survival function in patients with glioma.

## Methods

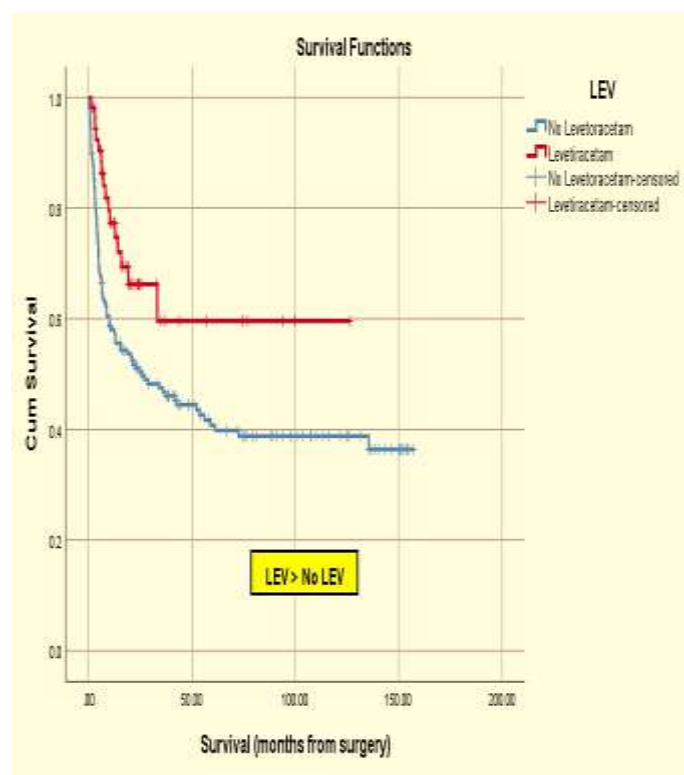
- This is a single center, retrospective analysis of patients with histologically proven gliomas in University Malaya Medical Centre, Malaysia between 2008 to 2020.
- Demographic, clinical and survival data was analyzed to determine the relationship between AED usage and survival in glioma.

## Results & Data

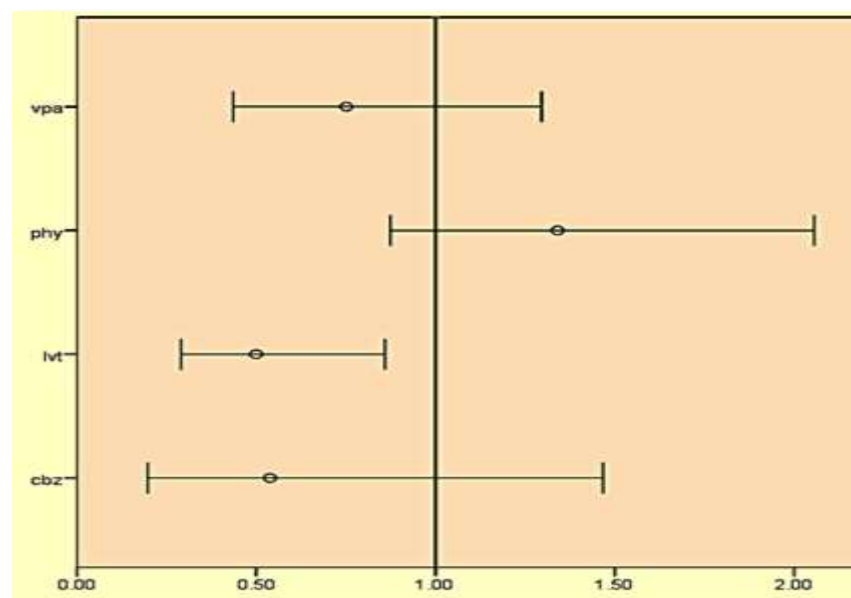
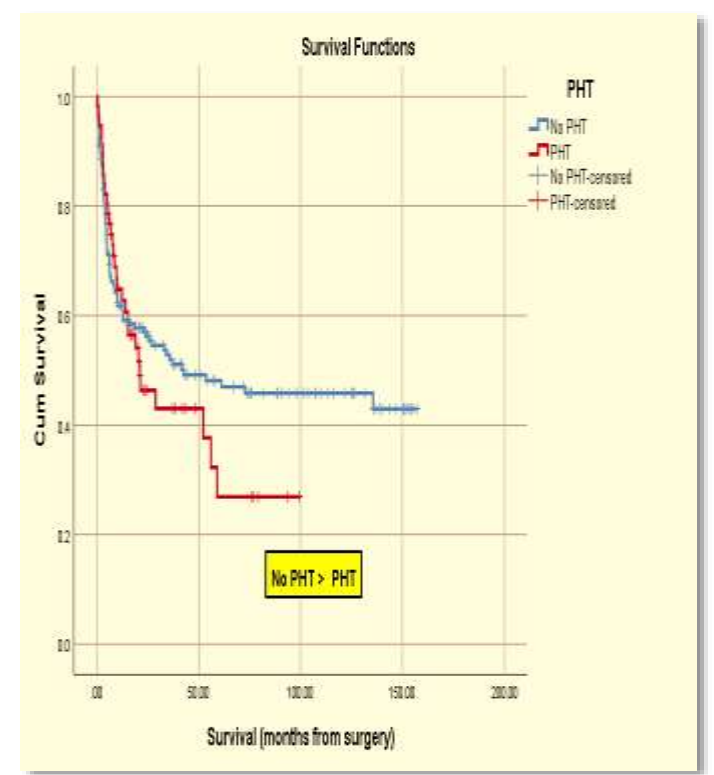
Survival for all grade Glioma



Survival for patients on LEV



Survival for patients on PHT



Cox Hazard ratio for Anti Seizure Medication in Glioma

VPA- HR: 0.75; 95% CI: 0.44-1.30; p:0.303

PHT - HR: 1.34; 95% CI: 0.87-2.06; p:0.180

**LEV - HR: 0.50; 95% CI: 0.30-0.86; p:0.012**

CBZ - HR: 0.54; 95% CI: 0.20-1.47; p:0.226

- 239 patients were recruited between 2008 to 2020, with minimum 1yr follow up
- Mean age -  $39.3 \pm 22.6$  year
- Mean survival:
  - Glioma with seizures – 95 mths vs Without seizures – 67 mths
- Significant impact on survival on logistic regression
  - WHO Grade ( $p < 0.001$ ),
  - Levetiracetam (LEV) administration ( $p < 0.001$ )

## Conclusion

- Our results demonstrated that glioma patients presenting with seizures have a significant survival advantage, especially for Grades II and III.
- Phenytoin and Levetiracetam was the most common ASM used in these patients.
- There was a statistical survival advantage for the use of Levetiracetam as the first line ASM in these patients.

## Acknowledgement

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## References

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