

Epilepsy Surgery in Low Grade Tumors: Case Series

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Introduction

Low grade tumors are a frequent cause of refractory epilepsy. The authors reviewed the outcome of patients with low grade tumors who underwent epilepsy surgery.

Methods

Retrospective analysis of the patients with a lowgrade tumor who underwent epilepsy surgery in Centro Hospitalar de Lisboa Ocidental, **from 2003 to 2017**.

The variables analyzed were:

- The demographic data
- Lesion location
- Type of surgery
- Histopathologic diagnose
- Complications
- Seizure outcome according to Engel classification.

Results

Demographic data $(n = 40)$		
Age (median) ± SD	20 ± 14,9	
Gender		
Female (%)	18 (45)	
Male (%)	22 (55)	
Mean follow up (months)	20	
Table 1 - Demographic data from the 40 patients included		

in the series

Overview					
Lesion Location	n	(%)			
Temporal	34	(85)			
Frontal	4	(10)			
Parietal	2	(5)			
Surgery (Procedure)					
Lesionectomy	34	(85)			
Anterior temporal lobectomy	6	(15)			
<u>Histopathology</u>					
DNET	18	(45)			
Ganglioglioma	14	(35)			
Oligodendroglioma	5	(12,5)			
Astrocytoma	3	(7,5)			
<u>Complications</u>	4	(10)			

Table 2 - Different variables according to frequency

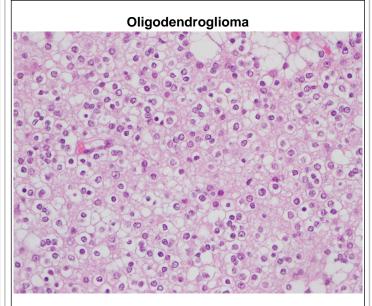
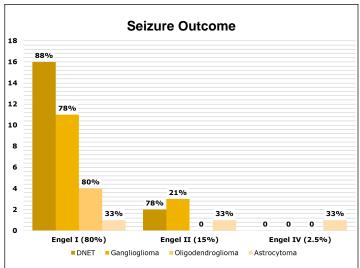


Figure 1 - Example of Oligodendroglioma, H&E 400X



Graphic 1 - Bar chart plotted from the number of patients in each Engel Class

Discussion

Other Series						
Series	n	Follow-up (months)	Engel Class I (%)			
Englot DJ et al ¹ 2011	773	48	71%			
Chang EF et al ² 2008	332	12	67%			
	40	25	80%			

Table 3 - Comparison with other previous series

Conclusions

In refractory epilepsy secondary to low grade tumors, surgery was effective in reducing seizure frequency, **notably in patients with DNETs.**

References

Englot DJ et al. Predictors of seizure freedom after resection of supratentorial low-grade gliomas. A review.- J Neurosurg. 2011 Aug;115(2):240-4

Chang EF et al. Seizure characteristics and control following resection in 332 patients with low-grade gliomas. - J Neurosurg. 2008 Feb;108(2):227-35