

# Seizure Control in Patients with Dual Pathologies

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## Dear Editor,

Temporal lobe epilepsy (TLE), the most common form of focal epilepsy, is resistant to treatment in 30% of cases. Dual pathologies (DP) with neocortical lesions such as hippocampal sclerosis and accompanying focal cortical dysplasia, vascular malformation, or tumor are important causes of failure in TLE surgery.<sup>1,2</sup>

A total of 125 patients who underwent surgery for TLE in our clinic between January 2005 and February 2023 were retrospectively reviewed. Thirty-one patients who were diagnosed with DP due to neocortical tumor formation together with hippocampal sclerosis were included in the study. The control group consisted of 34 patients randomly selected from the same age group who were reported as mesial temporal sclerosis (MTS) by pathology. Patient characteristics, preoperative seizure characteristics, postoperative outcomes and complications were recorded. The mean ages of the DP and control groups were 30.3±14.8 (17 female, 14 male) and 30±11.2 years (10 female, 24 male), respectively. All patients presented with complaints of seizures. The age at first seizure was significantly older in the DP group (9.2±7.8 vs. 26.5±15.9, p<0.001), and JTC-type seizures were more common (n=17, 54.8%; p=0.0119). Total resection was performed in 24 DP patients (77.4%). The most common pathological diagnoses in this group were oligodendroglioma (n=12, 38.7%) and DNET (n=7, 22.6%). Engel 1A seizure control: was achieved in 19 DP patients (61.3%) and in 23 controls (67.6%). There was no difference between the groups in terms of postoperative seizure freedom (p=0.6143). During the mean follow-up period of 44.8±35.1 months, 10 DP patients were reoperated due to recurrence. Postoperative hydrocephalus developed in 1 case (2.9%) in the control group. Two patients (6.5%) in the DP group were reoperated urgently due to postoperative intracerebral hematoma. Three patients (9.7%) in this group received treatment due to wound infection. There was no difference between the groups in terms of postoperative complications (p=0.0951).

In conclusion, DP should be considered in young adult-onset TLE in cases with MTS, and neocortical tumor. Therefore, in patients with DP, high seizure control can be achieved with low complications after resection of both lesions.

## Footnotes

### Authorship Contributions

Surgical and Medical Practices: P.E., A.B.D., A.B., Data Collection or Processing: P.E., Analysis or Interpretation: P.E., A.B.D., A.B., Writing: P.E.

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## REFERENCES

1. Harroud A, Bouthillier A, Weil AG, Nguyen DK. Temporal lobe epilepsy surgery failures: a review. *Epilepsy Res Treat*. 2012;2012:201651. [[Crossref](#)]
2. Blümcke I. Neuropathology of focal epilepsies: a critical review. *Epilepsy Behav*. 2009;15(1):34-39. [[Crossref](#)]