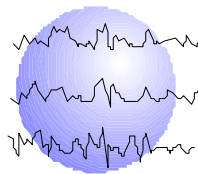


# **POSTOPERATIVE INDEPENDENT LIVING, WORKING, AND DRIVING AFTER A TEMPORAL LOBECTOMY FOR MEDICALLY REFRACTORY EPILEPSY**

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## **REVISED ABSTRACT**

### **RATIONALE**

The purpose of the surgical intervention for epilepsy treatment for medically refractory temporal lobe epilepsy is to render the patient seizure free with the clear implication that they can now drive, as well as continue or become productive members of society by being gainfully employed and living independently. This study was to obtain a long-term postoperative assessment of success in the areas of driving, employment, and independent living. This study involved patients who had received temporal lobectomies at the Minnesota Epilepsy Group between 1986 and 2001 and still actively being followed.

### **METHODS**

The study consisted of 44 patients, 21 males, 23 females, all of whom had received a temporal lobectomy between 1986 and 2001. Patients were sequentially selected who have met this fairly simple criteria of a limited temporal lobectomy of the right or left (X=Right, Y=Left) within that timeframe. Demographic seizures and medical data were retrospectively collected from both groups. Patients were classified as being seizure free, which could include simple partial seizures or having persistent complex partial or tonic-clonic seizures.

### **RESULTS**

We documented the number of patients driving, living independently, and working before surgery and compared that to their seizure outcome and their conditions after the procedure. Patients who worked and lived independently before surgery continued working and living independently. Those who did not work or live independently prior to surgery were able to achieve this state with a few exceptions described below. Prior to surgery, 12 patients were driving, after surgery 24 were driving. Of the remaining 20 patients, 5 were not driving due to seizure frequency, 8 due to cognitive impairment, 1 due to poor vision, 4 due to the expense or desire to drive, and 2 were unknown. 31 patients were working before surgery and 34 post surgery. Of the remaining 10 patients, only 2 were not working due to seizure activity, 1 due to memory impairment, 1 due to inability to handle pressure, 5 with mental impairment, and 1 unknown.

### **CONCLUSION**

Temporal lobectomy does result in long-term improvement in independent living, gainful employment, and driving. These results have been sustained for 3-17 years.

## **INTRODUCTION**

In our society, personal independence is highly valued. People with epilepsy and especially medically refractory temporal lobe epilepsy can find themselves totally dependent on family, friends and the various government agencies for their subsistence.

We have found at the Minnesota Epilepsy Group that the vast majority of patients who have undergone temporal lobectomies are maintaining their self-reliance in driving, working and independent living. This study explores the effects of temporal lobectomy on personal independence in patients with chronic epilepsy.

## **METHODS**

The study consisted of 44 patients, 21 males, 23 females, all of whom had received a temporal lobectomy between 1986 and 2001. Patients were sequentially selected who had a limited temporal lobectomy of the right or left hemisphere within that time frame (Table 1). Demographic seizures and medical data were retrospectively collected from both groups. Patients were classified as being seizure free, which could include simple partial seizures or having persistent complex partial or tonic-clonic seizures.

## **RESULTS**

Patients who worked and lived independently before surgery continued working and living independently. Those who did not work or live independently prior to surgery were able to achieve this state with a few exceptions described below. Prior to surgery, 12 patients were driving, after surgery 24 were driving. Of the remaining 20 patients, 5 were not driving due to seizure frequency, 8 due to cognitive impairment, 1 due to poor vision, 4 due to the expense or desire to drive, and 2 were unknown (Figure 1). 31 patients were working or going to school before surgery and 34-post surgery. Of the remaining 10 patients, only 2 were not working due to seizure activity, 1 due to memory impairment, 1 due to inability to handle pressure, 5 with mental impairment and 1 unknown (Figure 2). 36 patients were living independently prior to surgery and 42-post surgery. Of the remaining 2 patients, 1 was not living independently due to cognitive impairments and 1 unknown (Figure 3).

## **DISCUSSION**

Our study showed that patients who worked, drove and lived independently before surgery continued to do so after their surgery. Surgery did help a majority of the patients not previously working, driving, or living independently. As Jones et al, found that surgery did improve patient's quality of life along with their ability to work, drive, live independently and be financially independent.

## **CONCLUSION**

Temporal lobectomy does result in long-term improvement in independent living, gainful employment, and driving. These results have been sustained for 3-17 years.

## **REFERENCES**

Jones, JE, Berven, NL, Ramirez L, Woodard, A, Hermann, BP. Long-Term Psychosocial Outcomes of Anterior Temporal Lobectomy. *Epilepsia* 43(8): 896-903, 2002.

Figure 1

## Driving

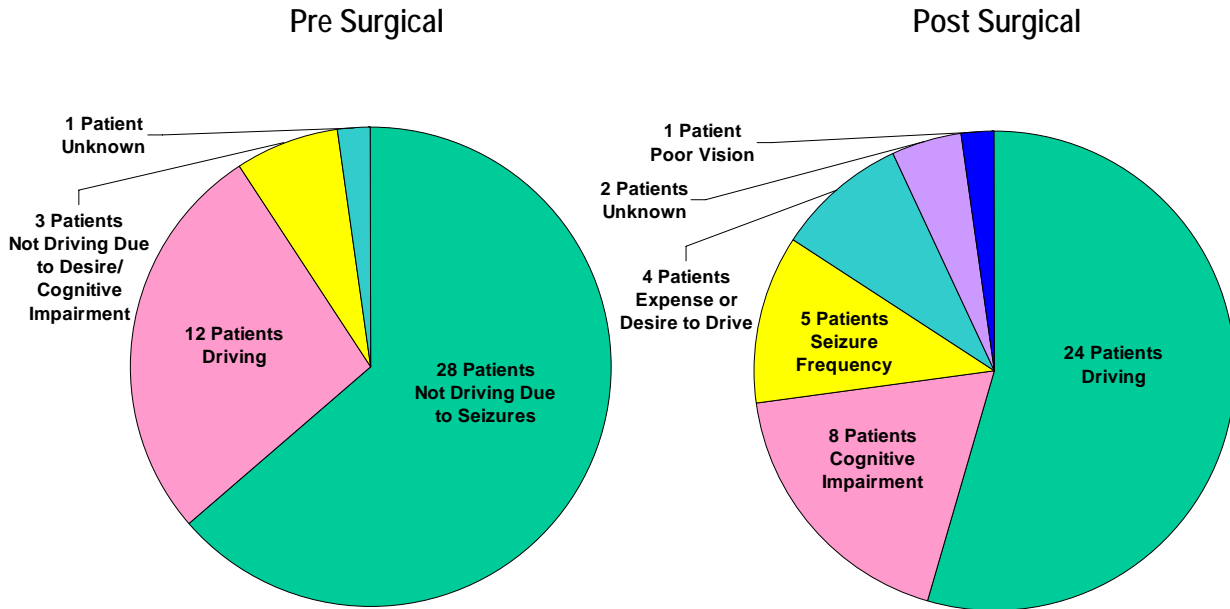


Figure 2

## Employment

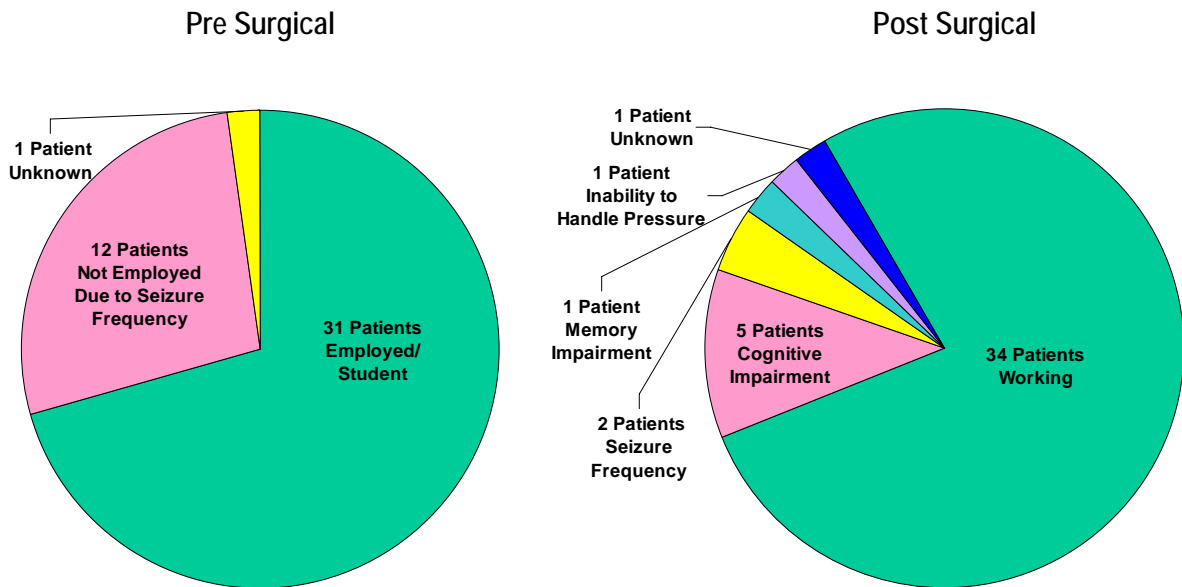


Figure 3

### Independent Living

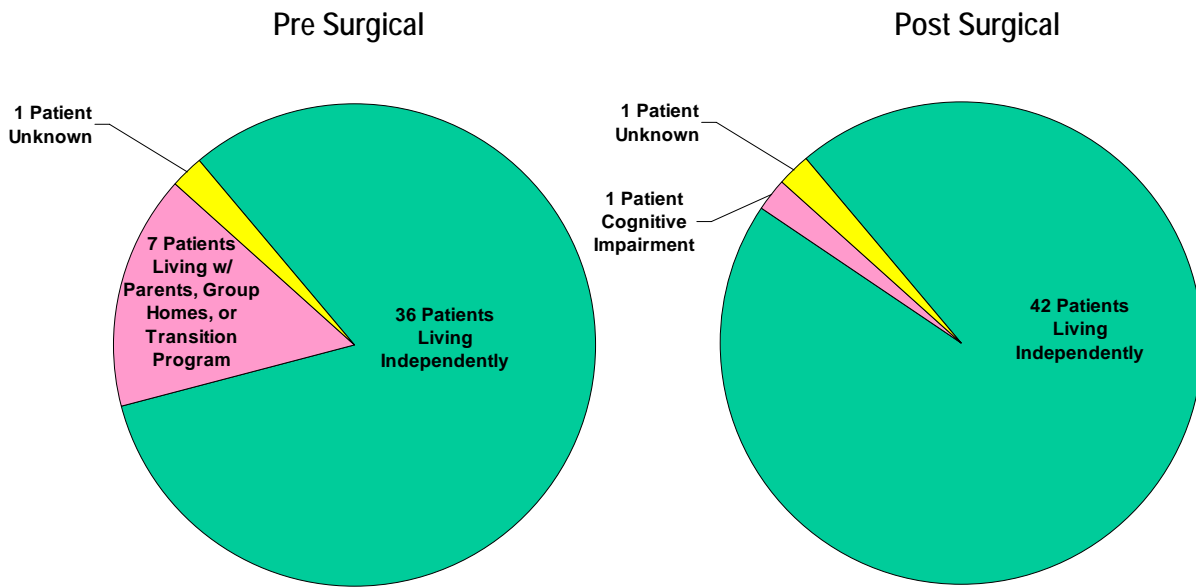


Table 1

### Demographic Variables

	Men	Women
Right Temporal Lobectomies	7	12
Left Temporal Lobectomies	15	10