**MEDICAL BREAKTHROUGHS**
**RESEARCH SUMMARY**

**TOPIC:** SPETL: BRAIN SURGERY THROUGH THE LIP!
**REPORT:** **MB #4865**

**BACKGROUND:** Approximately 3.5 million people in the United States have epilepsy with around 50 to 70 percent being able to successfully control their seizures with medication. This leaves 30 to 40 percent of patients that cannot have seizures controlled with medication, and therefore look toward surgery in order to help control their seizures. The craniotomy is the traditional way of performing surgery to help treat seizures. The surgery removes areas in the brain that are not completely responsible for the seizures in order to get access to the areas that need to be treated. The downfall of this treatment is that the removal of unnecessary areas to treat seizures could cause problems for the patients which may cause additional distress, mainly memory and cognition.
(Source: https://www.epilepsy.com/article/2018/4/latest-stats-about-epilepsy-cdc-who-has-epilepsy-and-seizure control#:~:text=This%20study%20shows%20that%20less,adults%20 who%20have%20uncontrolled%20seizures!)

**DIAGNOSING:** A doctor will review a person's symptoms and medical history and may order several tests to diagnose epilepsy and determine the cause of seizures. Diagnostic reviews may require a neurological exam to test a person's behavior, motor abilities, mental function and other areas to diagnose their condition and determine the type of epilepsy they may have. A person being diagnosed for epilepsy may also be required to have a blood sample taken to check for signs of infections, genetic conditions or other conditions that may be associated with seizures.
(Source: https://www.mayoclinic.org/diseases-conditions/epilepsy/diagnosis-treatment/drc-20350098 )

**NEW TECHNOLOGY:** Most recently, treating epilepsy seizures can be done by using laser ablations, a type of surgery that uses light and heat to destroy (ablate) a small part of the brain that causes seizures. This approach allows surgeons to perform resections of the major structures of the temporal lobe through the face which allows for a minimally invasive procedure where there are no craniotomies or openings in the skull. The benefit to this surgery method is that there is no need to expose larger areas in the brain and remove them in order to get access to the areas that need to be treated. Now, the surgery can be done just in the areas that require treatment.
(Source: https://www.brainrecoveryproject.org/about/about-epilepsy-surgery/brain-surgeries-to-stop-seizures/what-is-laser-ablation/#:~:text=Laser%20ablation%20is%20a%20type,small%20hole%20in%
20the%20skull.)

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**If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com**