

Rady Children's Neurotherapy Center

About ROSA™ Robotic System with Visualase

Utilizing the ROSA Robotic System with Visualase provides a combination of minimizing the potential for surgical injury in children and restoring lost function.

Restoring function

- Neurosurgical ROSA Robotic System with Visualase enables direct placement of neural stem cells into the site of injury with sub millimeter accuracy.
- Patient recovery may be significantly better following the direct placement of stem cells.

Minimizing injury

- The Neurosurgical ROSA Robotic System with Visualase replaces large neurosurgical procedures with guided approaches through holes the size of a BB.
- Can result in the cure of brain tumors and/or seizure disorders in children.

ROSA™ is the first multi-application robotic assistant for neurosurgery offering:

- Intuitive and powerful planning capabilities
- Surgeon oriented ergonomics
- Precise and dexterous instrument guidance
- Haptic collaboration with surgeon.

ROSA™ assists surgeons in a broad range of indications such as Epilepsy treatments, tumor surgery and endoscopy procedures.

The main benefits of using ROSA™ are:

- Streamlined treatment delivery
- Shorter operating time
- Reduced invasiveness for the patient
- Consistent surgical outcomes
- Traceability of interventions

Estimated cost - \$300,000



Visualase provides advanced MRI-guided laser ablation technology for neurosurgery. Laser energy is delivered to the target area using a laser applicator, as temperatures in the target area begin to rise, destroying the unwanted tissue.

Because Visualase procedures are guided by MRI images, the procedure can provide precise ablation. Due to the minimally invasive nature of the procedure, hospital stays have been reduced.

Advantages of Visualase Laser Ablation Technology:

- Most procedures are completed in less time than open procedures
- Most patients have little or no hair removed
- Minimal sutures required, typically a 1-stitch suture
- Most patients are discharged after a shorter stay
- Reduced scarring compared to open procedures

Estimated cost - \$300,000

