INFRATEMPORAL FOSSA SURGERY
Risks and Complications

You have been diagnosed with a glomus jugulare tumor. Surgical removal of these tumors is a very major and tedious procedure with several potential complications. The following is a description of these risks.

**Bleeding:** These are inherently tumors with extensive blood supply. Blood will be available for transfusion and will likely be needed.

**Nerve Injury:** The following cranial nerves are in close proximity to these tumors, and therefore at risk for temporary or permanent injury. Nerve injury may be inadvertent or necessary if involved by the tumor.

**Facial Nerve VII –** This nerve supplies all muscle movement to that half of the face. It must be completely freed up from the surrounding bone and moved to a new location in order to have access to the tumor. This usually causes total, but temporary, postoperative paralysis. Recovery may not be 100%. If the nerve is cut inadvertently or intentionally because of tumor involvement, a nerve graft will be used to repair the nerve. In this case, paralysis will be total for 6 to 12 months, and recovery will be incomplete with some mass movement. If a nerve graft from the ankle is needed, there will be numbness on the side of the foot. The primary functional problem with a facial nerve paralysis is protection and care of the eye and additional measures may be needed to care for the eye until nerve recovery.

**Glossopharyngeal Nerve IX –** This nerve provides sensation to that side of the throat. Loss of this nerve usually results in only mild swallowing difficulty.

**Vagus Nerve X -** This nerve provides sensation to that side of the voice box and movement to that vocal cord. Loss of this nerve can result in significant hoarseness and marked difficulty swallowing. A vocal cord injection or other procedures may be needed if postoperative symptoms are severe.

**Accessory Nerve XI –** This nerve supplies the large shoulder muscle, trapezius. Loss of this nerve causes some weakness of the shoulder and at times pain in the shoulder.
** Hypoglossal Nerve XII – This nerve supplies the muscles in that side of the tongue. Loss of this nerve alone usually causes only minimal temporary tongue incoordination, but when combined with the loss of X, it can compound the swallowing difficulty.

** Carotid Artery Injury: This is the major source of blood supply to that entire half of the brain. This artery runs through the ear just in front of these tumors. The risk of injury to this vessel is directly related to the degree of tumor invasion around the artery. Although severe damage is uncommon, when it occurs stroke and even death can result.

** Hearing Loss: Because of the extensive nature of the surgery, the ear cavity must be sealed off and the ear canal closed. Abdominal fat is used to fill the cavity. If the nerve of hearing is normal, this results in a 50% hearing loss. If the nerve of hearing is damaged, either inadvertently or intentionally for tumor removal, total hearing loss and dizziness can occur.

** Intracranial Complications: If the tumor invades into the brain cavity, then neurosurgical assistance is required. Spinal fluid leak and other nerve damage can occur depending on the extent of tumor invasion.

Our goal in performing this surgery is to achieve complete tumor removal with the least complications. But like other aspects of life, there are no guarantees of success. If by chance you have a complication after surgery, we will do our best to treat the problem. Please let me or my staff know if you have any questions.