

International Conference and Exhibition on

# Pain Medicine

June 08-10, 2015 Chicago, USA

## Glossopharyngeal nerve neurolysis with alcohol: A case report

Serbülent Gökhan Beyaz<sup>1</sup>, Aykut Saritaş<sup>2</sup>, Ali Metin Ülgen<sup>1</sup> and Fikret Bayar<sup>3</sup>

<sup>1</sup>Sakarya University Medical School, Department of Anesthesiology and Pain Medicine, Turkey

<sup>2</sup>Prof Allhan Özdemir Training Research Hospital, Department of Anesthesiology, Turkey

<sup>3</sup>Sakarya University Training Research Hospital, Department of Anesthesiology and Pain Medicine, Turkey

**Introduction:** Glossopharyngeal nerve (GPN) blocking is an interventional technique that has occasionally been used for the palliative treatment of pain due to head-neck malignancies and glossopharyngeal neuralgia (1). In clinical practice, GPN blocking was first used as an aid for awake endotracheal intubation in the late 1950s (2). In 1910, Wisenbug (2) identified pain in the distribution of the glossopharyngeal nerve in a patient with a cerebellopontine angle tumor. In 1921, Harris (2) reported the first idiopathic case and coined the term glossopharyngeal neuralgia. However, there are very few articles and case presentations on GPN blocking. Therefore, we present a patient with cancer of the tongue base who underwent bilateral GPN neurolysis using alcohol.

**Case Report:** One month earlier, a 38-year-old male was hospitalized because of tongue root cancer required a tracheostomy and gastrostomy following obstruction of the respiratory tract. He had limited mouth opening and developed severe painful paresthesias, with throbbing at the tongue base, intraorally, and in the throat. Medically, he was treated with pregabalin 300 mg/day, duloxetine 60 mg/day, tramadol 400 mg/day, paracetamol 4 g/day, dexketoprofen trometamol 100 mg/day, and 100 µg/hr fentanyl patches. No local infection, changes in vital signs, or coagulopathy were observed. We decided to perform a prognostic GPN block. In the operating room, the patient was laid on his left side, monitored, and given sedoanalgesia. The mid-point of an imaginary line from the mastoid process to the edge of the left mandible was located. The skin was cleaned with antiseptic solution and a 10 cm 22G spinal needle was inserted perpendicularly to the skin until it touched the styloid bone at a depth of approximately 3.5 cm. Then it was withdrawn slightly and directed posteriorly. The loss of bone contact was confirmed with fluoroscopy. The next day, the patient reported a VAS score of 5 for his pain. Therefore, using the same technique, in the place where diagnostic block was 4 mL 50% alcohol was injected into the right and left sides. On account of the fact that it is a neurolytic block we waited for 20 minutes before bilateral injection. Weakness of the left trapezius muscle was observed caused by N.accessorius blockage. No tachycardia, infection, ecchymosis, or hematoma developed.

**Conclusion:** A GPN block must be performed with care, because the vagus, hypoglossa and accessory nerves are very close to the GPN. Therefore, any GPN block must be performed by an experienced anesthesia and pain specialist because of the nerves, major veins (retromandibular vein and posterior auricular vein that forming the internal jugular vein) and arterial structures (internal carotid artery and its branches) in the region. Lijewski (3) reported that upper airway obstruction was the most common complication after using GPN blocks to control pain after pediatric tonsillectomies because of unintentional blockade of the hypoglossal nerve, which is very near the GPN in the lateral pharyngeal region. There is no structure in this region to limit the spread of the anesthetic. A GPN block can cause secondary hypertension with tachycardia and an obstructed upper airway if the nearby vagus and hypoglossal nerves are blocked by mistake (3). We observed weakness of the left trapezius as a potential complication of GPN block caused by N.accessorius blockage, but no other complications. In summary a GPN block can decrease cancer pain due to invasive tumors of the tongue= base, hypopharynx and tonsils that cannot be controlled medically

[srebrodragana1@gmail.com](mailto:srebrodragana1@gmail.com)

## Notes: