

# Blocking Right Nerve at Wrong Place, Occipital Nerve Block for Midline Suboccipital Craniotomies

Palaksha DG\*

Department of Neuro Anaesthesiology and Neurocritical care, National Institute of Mental Health and Neurosciences, India

\*Corresponding author: Deepak Ganjigere Palaksha, Department of Neuro Anaesthesiology and Neurocritical care, National Institute of Mental Health and Neurosciences, India, Tel: 9164339461; Email: deepuganjigere@gmail.com

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## Abstract

Greater occipital nerve is usually blocked at nuchal line in suboccipital craniotomies. This communication answers where the nerve to be blocked. The technique and procedure is popular among pain physicians. It is important to understand the anatomy to utilise this block.

**Keywords:** Occipital Nerve; Midline Suboccipital Craniotomy; Anatomy

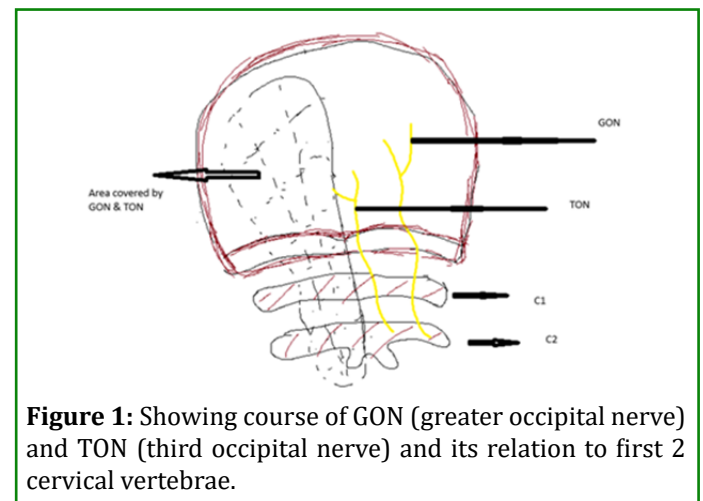
## Abbreviations

GON: Greater Occipital Nerve; TON: Third Occipital Nerve.

## Introduction

The midline suboccipital craniotomy is commonly practised to approach cerebellar lesion and lesion from 4th ventricle. The skin incision for posterior fossa surgeries extends from a point above the inion till the C2 spinous process [1]. It is a common practice to block greater occipital nerve (GON) at the level of nuchal line or local infiltration along the skin incision. A recent Study conducted by Nassar H, et al. [2] has shown former being more effective [2]. However, the answer to this question could be a familiar alternative. The sensory supply in this area is supplied by GON and the third occipital nerve (TON) [3]. The course and distribution of nerve supply is shown in Figure 1. It is important to understand the course of GON to choose the right level of nerve block. The blockade of GON at the level of second cervical vertebra (C2) would be more beneficial as the nerve distal to these point supplies areas of surgical incision [4]. This technique is practiced by pain physicians to treat occipital neuralgia. An additional benefit of the drug spread in the plane between obliquus

capitis inferior muscle and semispinalis capitis muscle might block TON. The TON is mostly subcutaneous at the level of surgical incision, local infiltration of local anaesthesia drug would provide good analgesia. It is a practice in major centres where GON is blocked at the level of nuchal line. However, it cannot be explained by above mentioned anatomical basis. With availability of ultrasound GON can be easily blocked at the level of C2.



**Figure 1:** Showing course of GON (greater occipital nerve) and TON (third occipital nerve) and its relation to first 2 cervical vertebrae.

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