

# A Refractory Case of Occipital Neuralgia Remedied by Pulsed Radiofrequency Ablation

Anishinder Parkash, MD<sup>1</sup>; John Gallagher MD<sup>1</sup>; Preet Patel ,MD<sup>2</sup> Hirsh Kaveeshvar DO<sup>2</sup>

<sup>1</sup>Department of PM&R, Tower Health, West Reading, PA <sup>2</sup>Synergex Med, Los Angeles, CA

## INTRODUCTION

**Occipital Neuralgia (ON)** is a debilitating condition under the umbrella of chronic headaches.<sup>1</sup> Clinical manifestations of ON include a reproducible and continuous paroxysmal stabbing pain that begins at the base of the skull and advances up the back of the head to varying degrees.<sup>2</sup> The etiology of this progressive pain pattern may be due to entrapment or inflammation of occipital cutaneous nerves in the posterior neck.<sup>2</sup> In several case series studies, >90% of patients exhibit a constant baseline pain.<sup>3-4</sup> A multi-modal interventional approach should be taken with all patients who present with ON.

## METHODS

As the case report is devoid of patient identifiable information, it is exempt from IRB review requirements as per Synergex policy.

## CASE DESCRIPTION

A 74-year-old male presents with persistent headaches after a motor vehicle accident. He reports the headache as severe pain in the back of his scalp, causing nausea, and episodes lasting up to 10-20 minutes at a time. His headaches increase in intensity when moves his head to the left and describes the pain as sharp, shooting, stabbing in nature, and rated the pain 8/10 to 10/10. The patient also endorses the area sensitive to touch. His symptoms interfered with daily activities including driving and working. Initially the patient tried acetaminophen, chiropractic treatment, and physical therapy for his ailments which were all unsuccessful.

## CASE DESCRIPTION cont.

The patient underwent a bilateral cervical facet medial branch block at C2-C3 and C3-C4. The patient found minimal relief post procedure. He then underwent a greater(GON) and lesser occipital nerve(LON) block in which he found almost complete resolution of his symptoms for about 2 weeks. Shortly thereafter his headache returned to the same intensity as prior to the procedure. Finally, the patient agreed to undergo pulsed radiofrequency ablation at bilateral levels of the GON and LON. Radiofrequency lesioning was done at 45 degrees celsius for 4 minutes per site. The current was delivered in short bursts, twice per second, followed by a quiet phase in which no current is applied. The patient returned to the clinic 2 weeks later with near resolution of symptoms and an average numerical pain score ranging from 2/10-3/10.

## DISCUSSION

This case illustrates that physicians should stay diligent in finding an individualized treatment plan for Occipital Neuralgia. Interestingly, the patients' symptoms resolved targeting the GON and LON versus proximally at C2-C3. ON has multifactorial aspects in which every patient may present differently. These patients require a multimodal approach in which every treatment option should be exhausted

## CONCLUSION

When compared with the results of other ON treatment modalities, pulsed radiofrequency ablation(PRFA) can show higher efficacy without any complications.<sup>5-8</sup> PRFA should be considered an efficacious treatment strategy for ON, especially in refractory ON patients. Future long-term prospective clinical trials are necessary to establish PRFA effectiveness.<sup>9</sup>

SCAN ME!

