

Evidence Discussion

Greater Occipital Nerve Blocks

Occipital nerve blocks are considered effective in treatment of occipital neuralgia and considered the first line treatment of occipital neuralgia, but the duration of effect was often short lived. (1, 2)

Interventional procedures such as a Greater Occipital Nerve block may not provide the desired benefit for pain management. Complications are possible and include: dizziness; allergic reaction to the injectate; risk of infection at or near the injection site; local anesthetic toxic reactions which could include seizures and/or heart stoppages; blood sugar disturbances if a steroid is used; contribute to damage to adjacent structures and may cause bleeding/blood clot formation under the skin. (5)

The impact of glucocorticoids are not fully defined. Evidence supports that even a single injection risk includes bone demineralization and increased risk of fractures in postmenopausal woman, suppression of the hypothalamic-pituitary adrenal axis, immune dysregulation and hyperglycemia in patients with diabetes mellitus. (6)

References:

- (1) Juškys R, Šustickas G. Effectiveness of treatment of occipital neuralgia using the nerve block technique: a prospective analysis of 44 patients. *Acta Med Litu*. 2018;25(2):53-60. doi: 10.6001/actamedica.v25i2.3757.
- (2) Pan W., Peng, J, Elmofty D. Occipital Neuralgia. *Curr Pain Headache Rep*. 2021 Jul 21;25 (9):61
- (3) Gul HL, Ozon AO, Karadas O, et al. The efficacy of greater occipital nerve blockade in chronic migraine: A placebo-controlled study. *Acta Neurol Scand*. 2017;136(2):138-144.
- (4) Blumenfeld A, Ashkenazi A, Napchan U, et al. Expert consensus recommendations for the performance of peripheral nerve blocks for headaches—a narrative review. *Headache*. 2013;53(3):437-46.
- (5) Greater Occipital Nerve (GON) block injections- Injections into the head to prevent migraine. © 2021, *The Migraine Trust*. <https://migrainetrust.org/live-with-migraine/healthcare/treatments/greater-occipital-nerve-gonblock-injections/#page-section-1>.
- (6) Becker, Daniel *Anesth Prog* 2013 Spring; 60 (1):25-32)