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NEWS

Stellate Ganglion Block with CT Guidance for Post-COVID Parosmia

PURPOSE

Long term anosmia and parosmia are known late sequelae of COVID-19. While promising treatments for anosmia have evolved, parosmia is often refractory to pharmaceutical and topical therapies, leading to mood disorders, weight loss, and decreased quality of life. We worked with ENT colleagues to assess the potential benefits of CT-guided stellate ganglion block (SGB) in patients with long term post-COVID parosmia.

METHODS AND MATERIALS

Subjects were referred from an ENT olfactory subspecialist after at least 6 months of post-COVID parosmia, refractory to pharmaceutical/topical therapies. Situs was selected based upon hand dominance. CT guidance was used to position a 25-gauge spinal needle anterior to the lateral margin of the longus coli muscle at the level of T1 and positioning was confirmed with iodinated contrast. 1cc Lidocaine was injected and any Horner's syndrome was documented. In this location, 40mg of Depo Medrol and 2cc of were injected at the stellate ganglion. Change in symptoms was monitored through scheduled survey responses.

RESULTS

54 subjects presented for SGT (74% female, mean age 46 and range 14-71). Follow-up was obtained for 65% (37/54) of patients among whom 59% (22/37) reported improved symptoms at 1 week post injection. 82% (18/22) experienced progressive improvement with significant increase in mean reported improvement by 1 month post procedure (p=0.02, Figure 1). At 3 months, responders to SGB reported a mean of 49% improvement in symptoms (range 10-100%). 26 subjects returned for a contralateral injection with at least a 6-week interval. Of these, 100% (8/8) who reported no improvement after the 1st injection had no improvement after the 2nd injection. 86% (12/14) of subjects who reported some improvement after the 1st injection reported additional improvement after subsequent contralateral injection. For all injections, a Horner's syndrome was confirmed by exam in 95% (76/80), and all signs of Horner's syndrome resolved within 30 minutes of the injection. No complications or adverse events were reported.

CONCLUSIONS

Percutaneous SGB shows promise for patients with long term post-COVID parosmia, and CT provides ideal efficiency and guidance. For patients with improvement post SGB, and 2nd contralateral treatment may provide additional benefit.

CLINICAL RELEVANCE/APPLICATIONS

CT-guided stellate ganglion block is a new, minimally invasive and potentially impactful image guided therapy for patients with longstanding post-COVID parosmia.