

Introduction

Post Herpetic Neuralgia (PHN) is distinct from Trigeminal Neuralgia (TN) pain. Co-existence of the two pain types results in immeasurable psychosocial morbidity. PHN is usually self-limiting and conservatively managed. Medically refractory TN with a vascular loop is treated with microvascular decompression (MVD). We discuss a patient with PHN and TN (with vessel contact at REZ on MRI) treated with MVD with complete pain resolution.

Learning Objectives

1. Inflammation and scar tissue along with venous compression may have role in origin of PHN pain.
2. MVD might need to be included as an important treatment option in medically refractory PHN pain; irrespective of if type 1 TN pain is present or not; with or without a vessel loop around REZ of trigeminal nerve.
3. Define how to differentiate type 1 trigeminal neuralgia pain from post herpetic neuralgia.

Pre-operative MRI

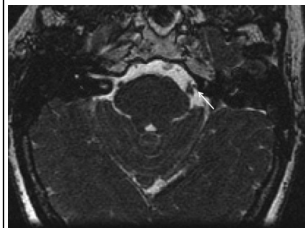


Figure 1: Fiesta T2 MRI showing compressive vessel loop (white arrow) adjacent to Trigeminal Nerve

T2 Fiesta Sequence showing adjacent vessel loop near Trigeminal Nerve causing compression.

Methods

48-year-old female with a 12-year history of left facial pain that started after a bout of zoster. She described a baseline constant burning pain; and a second type of sharp pain exacerbated by touch, face washing, brushing teeth – Type I TN. She had failed Lyrica, gabapentin, lidocaine patches and nerve block injections. FIESTA MRI demonstrated a vascular loop contacting the left trigeminal nerve REZ.

Conclusions

Patients with co-existing PHN and Type I TN pain could be offered MVD if MRI demonstrates a vascular loop. Perhaps scar tissue and venous compression may have an etiopathogenic role in PHN pain and a surgical role in management of this pain type needs be incorporated in our treatment strategy.

Results

Based on MR imaging and a despondent patient with symptoms for 12 years, MVD was performed keeping in mind symptom relief could be partial at best. Dense arachnoid scarring with matted arteries and veins was noted. After careful scar tissue resection around the trigeminal nerve, a small SCA was found and mobilized along with placement of Teflon pledgets. In addition two veins adhered to the nerve were also noted and these were coagulated and cut. On post operative day two she reported complete relief of both PHN and Type I facial pain. At 1 month follow up she continues to be symptom free with intact facial sensation.

Intraoperative Photos

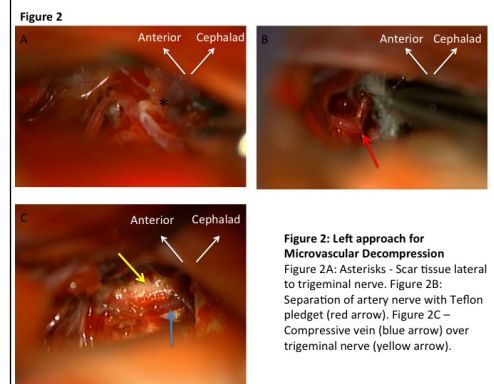


Figure 2

Figure 2: Left approach for Microvascular Decompression
 Figure 2A: Asterisks - Scar tissue lateral to trigeminal nerve. Figure 2B: Separation of artery nerve with Teflon pledget (red arrow). Figure 2C - Compressive vein (blue arrow) over trigeminal nerve (yellow arrow).

Intraoperative view of microvascular decompression with significant scarring and vessels compressing of trigeminal nerve.

References

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