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Case Report

세포교정영양요법(OCNT)을 이용한 삼차신경통 개선 사례 보고

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Ortho-Cellular Nutrition Therapy (OCNT) for Trigeminal Neuralgia: A Case Report

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ABSTRACT

Objective: The trigeminal nerve, a cranial nerve that innervates the head and neck, supports both sensory and motor functions. Pathology affecting this nerve produces paresthesia or pain, a condition termed trigeminal neuropathy; when pain is the predominant symptom, it is referred to as trigeminal neuralgia. Trigeminal neuralgia presents with severe, paroxysmal facial pain, typically involving the jaw, gingiva, and maxilla First-line management is pharmacological; if symptoms remain refractory, surgical intervention is considered.

Case Report: A Korean woman in her 50s presented with intermittent, severe pain in the maxillary region. She had been diagnosed with trigeminal neuralgia at a hospital and was taking the prescribed medication. She reported decreased concentration, anxiety, and gastrointestinal side effects. Anxiety associated with the paroxysmal pain was accompanied by fatigue and constipation. To address these symptoms, Ortho-Cellular Nutrition Therapy (OCNT), which consisted of methylsulfonylmethane (MSM), anthocyanins, selenium, zinc, magnesium, calcium, and psyllium husk, was initiated. After approximately 4 months of OCNT, the frequency and intensity of pain decreased, and her anxiety, fatigue, and constipation improved markedly.

Conclusion: Appropriate OCNT may help achieve meaningful improvement in trigeminal neuralgia and its associated symptoms. However, as this case report describes a single patient, further studies are warranted before extending these findings to other patients with trigeminal neuralgia.

Keywords Ortho-Cellular Nutrition Therapy (OCNT), trigeminal neuralgia, nervous system, paroxysmal pain

Introduction

The trigeminal nerve is the fifth of the twelve cranial nerves, arising from the brain and projecting to the periphery. It is among the largest cranial nerves that innervates the face and is distributed across the head and neck. The nerve has three principal divisions: ophthalmic, maxillary, and mandibular. It transmits facial sensory modalities, including pain and temperature, to the brain. The mandibular division also carries the motor fibers.[1]

When pathologic changes affect this nerve, sensory disturbances such as paresthesia or numbness may occur, and weakness of the muscles of mastication can develop. This condition is referred to as trigeminal neuropathy. Hyperesthesia or dysesthesia may also be present. When pain is the predominant symptom, the condition is referred to as trigeminal neuralgia.[2]

Compared with trigeminal neuropathy, trigeminal neuralgia is often harder to attribute to a specific cause. Reported causes include idiopathic cases, ectopic action potentials at the nerve root of pain-sensitive afferent fibers, compression of the trigeminal ganglion by a vessel such as a cerebral artery, and secondary causes related to diseases, including multiple sclerosis or herpes zoster infection.[3]

A cardinal diagnostic feature of trigeminal neuralgia is a brief, severe, stabbing pain that lasts from seconds to minutes. The pain tends to be unilateral within the maxillary (V2) or mandibular (V3) divisions and may involve the jaw, lips, gingiva, and the region around the maxilla. The disorder may persist over weeks, with pain-free intervals. These features are elicited during history taking, and MRI can be obtained when needed to

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support the diagnosis and assess severity. First-line treatment is pharmacological with agents such as carbamazepine, gabapentin, phenytoin, and baclofen. If the response is inadequate, surgical options such as microvascular decompression, radiofrequency thermocoagulation, or neurectomy are considered to alleviate or eliminate symptoms.[4]

The patient in this case had been diagnosed with trigeminal neuralgia at a hospital and was taking prescribed medication. Owing to adverse effects and anxiety associated with paroxysmal pain, Ortho-Cellular Nutrition Therapy (OCNT) was implemented. Consequently, pain and anxiety, as well as other associated symptoms, showed significant improvement. Accordingly, this case is reported.

Case Report

1. Patient

A single case of trigeminal neuralgia was included.

1) Name: Jeong OO (50 years old / F)
2) Diagnosis: Trigeminal neuralgia
3) Onset date: April 12, 2023
4) Treatment period: June 2023 to October 2023
5) Chief complaints: Right maxillary paroxysmal pain, anxiety, constipation
6) Past medical history: Stress-induced headache
7) Social history: Work-related stress
8) Family history: stroke in mother
9) Present illness and medications: gabapentin, carbamazepine

2. Methods

The OCNT regimen prescribed to the patient is detailed in Table 1.

Table 1. OCNT administered to the patient.

Type \ Months	1	2	3	4
Cyaplex A granules	101	101	101	101
Eufaplex Alpha stick	101	101	101	101
Tmplex granules	100	100	–	–
Tmplex capsules	–	–	101	101
Sulfoplex PK tablet**	404	404	404	404
Macalplex granules	001	001	001	001
Bioplex F granules	–	–	001	001
Heartberry black	–	–	101	101

100: once daily, take 1 sachet/tablet/capsule per dose in the morning, 001: once daily, take 1 sachet/tablet/capsule per dose in the evening, 101: twice daily, take 1 sachet/tablet/capsule per dose in the morning and in the evening, 404: twice daily, take 4 sachets/tablets/capsules per dose in the morning and in the evening
** If needed, increase to 444 (three times daily, take 4 tablets per dose in the morning, at noon, and in the evening)

Results

Approximately one month after initiating OCNT, the patient reported a significant reduction in the paroxysmal pain that had been the principal source of discomfort. Thereafter, anxiety related to the pain subsided, and fatigue, constipation, and other associated symptoms gradually improved. After four months of OCNT, the patient was able to perform daily activities at a level comparable to that before the diagnosis of trigeminal neuralgia. The patient-reported level of discomfort during the OCNT period is presented in Table 2.

Table 2. Severity of symptoms reported by the patient during OCNT. Higher scores from 0 to 5 indicate greater discomfort experienced by the patient.

Symptoms \ Months	1	2	3	4
Paroxysmal pain	5	2	1	0
Anxiety	4	1	1	1
Fatigue	4	2	1	1
Constipation	3	1	0	0

0: No symptoms and no impact on daily activities; 1: Mild symptoms with minimal impact on daily activities; 2: Noticeable symptoms requiring minor adjustments in daily activities; 3: Symptoms significantly affect daily activities, making some tasks difficult; 4: Major difficulty performing tasks during daily activities; 5: Symptoms severely interfere with daily activities, causing substantial distress

Conclusions

The patient was a woman in her 50s who worked at the public service desk of a police station and reported excessive occupational stress. Consequently, she experienced frequent headaches and sensory disturbance in the right maxillary region, along with sharp, needle-like pain that prompted hospital evaluation. She was diagnosed with trigeminal neuralgia and was subsequently prescribed gabapentin and carbamazepine, but reported decreased concentration, anxiety, and gastrointestinal adverse effects. In addition, she experienced anticipatory anxiety about unpredictable paroxysmal pain and constipation that interfered with her daily activities. Therefore, OCNT was initiated to prioritize pain control and support the improvement of associated symptoms.

Sulfoflex PK tablets were prescribed to help alleviate the patient's pain. The active ingredient of Sulfoflex PK is methylsulfonylmethane (MSM), an organosulfur compound. MSM is known to help regulate inflammation by inhibiting NF-κB, a driver of inflammatory responses, and by reducing the expression of inflammatory mediators such as interleukins and TNF-α. By modulating the expression of transcription factors such as signal transducer and activator of transcription (STAT) and Nrf-2, MSM may influence the balance between reactive oxygen species and antioxidant enzymes, thereby helping to regulate antioxidant responses. In several randomized controlled trials, MSM supplementation has produced significant improvements in pain, swelling, and stiffness compared with control, with few adverse effects reported. Accordingly, MSM was considered to have contributed substantially to the alleviation of pain in this patient.[5]

In addition, various agents were prescribed to help improve physical function and protect cells by reinforcing the endogenous antioxidant capacity. Anthocyanins, a class of flavonoids with red or purple coloration, have shown strong antioxidant effects in animal and human studies. These compounds can increase the activity of antioxidant enzymes such as superoxide dismutase (SOD) and glutathione peroxidase (GPx) and reduce the accumulation of reactive oxygen species, thereby supporting the antioxidant function.[6] Accordingly,

Cyaplex A and Heartberry black were prescribed to provide anthocyanins.

Among the mineral constituents, selenium and zinc have been the subject of numerous mechanistic studies for their potential contributions to the antioxidant function. Selenium serves as a component of selenoproteins in humans and has been shown to assist the neutralization of reactive oxygen species via antioxidant enzymes. Zinc, in addition to regulating antioxidant enzyme function, contributes to the stability of cell membranes and may help prevent oxidative stress–induced membrane damage.[7] Tmplex contains these constituents in substantial amounts and was prescribed to provide high-quality selenium and zinc.

Trigeminal neuralgia primarily arises from abnormalities of the nervous system, which can stem from diverse causes, including nutritional imbalance. Calcium and magnesium are minerals that play essential roles in neuronal excitability and signal transmission. The disruption of calcium homeostasis can lead to neurodegeneration and pain. Therefore, maintaining adequate intake of these nutrients to maintain stable systemic levels may support neural function.[8] Accordingly, Macalplex was prescribed to provide calcium and magnesium.

The patient reported constipation associated with stress and anxiety related to trigeminal neuralgia. Constipation is a recognized adverse effect of antiepileptic agents such as gabapentin and carbamazepine.[9] Accordingly, Bioplex was prescribed to improve constipation symptoms. Bioplex contains psyllium husk, probiotics, and fructooligosaccharides. Psyllium husk consists of more than 80% dietary fiber, and numerous randomized controlled trials have reported increased stool frequency and improved stool form.[10] Probiotics help improve functional bowel disorders such as irritable bowel syndrome, and randomized controlled trials have shown significant increases in overall bowel movement frequency.[11] Fructooligosaccharides are metabolized by intestinal bifidobacteria to generate short-chain fatty acids (SCFAs), which promote colonic water absorption, increase stool water content, and stimulate peristalsis, thereby helping to relieve constipation.[12] These constituents appear to have made a meaningful contribution to the improvement of constipation in this patient.

Through the above OCNT, the patient showed significant improvement in paroxysmal pain due to trigeminal neuralgia, and relief of anxiety, improvement in fatigue, and resolution of constipation were observed. After OCNT, the patient reported being able to continue activities of daily living and work as before the onset of trigeminal neuralgia and expressed high satisfaction. However, because this case involves a single patient, the applicability to others with similar symptoms is limited, and further studies applying OCNT to additional patients with trigeminal neuralgia are warranted. Nevertheless, as OCNT appeared to reduce adverse effects and promote symptomatic improvement, this case is reported with consent from the patient.

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