

Successful Treatment of a Case of First Bite Syndrome without Any Cause

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Abstract

Background: For the first bite syndrome (FBS), various causes were suggested such as parapharyngeal space surgery, resection of styloid process, carotid endarterectomy, parotid gland tumor, submandibular gland tumor, and upper cervical surgery. Actually, the real cause of FBS is still not clear. Also, suggested methods of treatment for the FBS are botulinum toxin injection, laser tympanic plexus ablation, pharmacologic approach, and no treatment. The results of those treatments were not satisfactory. **Aim:** The authors tried to find out the adequate method of treatment for the FBS and also tried to figure out pathologic cause of the FBS through observation of the patient response to the treatment. **Case Presentation:** A 38-year-old male was presented at head and neck surgery clinic with a sharp pain on the left parotid area especially at the first bite of eating food for two days. There was no cause. The patient was given trigger point injections on his left sternocleidomastoid, masseter, and temporal muscles with left mandibular nerve block five times 3 - 4 days apart. Also small amount of oral anticonvulsants were added for four weeks. Before finishing taking oral medication, the pain was gone completely. **Conclusion:** The authors experienced a case of FBS with no detectable cause, and treated successfully with the methods of trigger point injection, mandibular nerve block, and oral antiepileptic medication.

Keywords

First Bite Syndrome, Mandibular Nerve Block, Oral Medication, Trigger Point Injection

1. Introduction

First bite syndrome (FBS) refers to facial pain characterized by a severe cramping or spasm in the parotid region

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with the first bite of each meal that diminishes over the next several bites. It is supposed to be a potential sequela of surgery involving the infratemporal fossa (ITF), parapharyngeal space (PPS), and/or deep lobe of the parotid gland. Up to date, the incidence, risk factors, treatment options, and outcomes of FBS are poorly understood [1]. The authors came upon a patient with FBS for 20 days without any cause, and manipulated the syndrome successfully with the methods of trigger point injections, mandibular nerve block, and combined small amount of anticonvulsants carbamazepine and neurontin.

2. Case Report

A 38-year-old male was presented at head and neck surgery clinic with a sharp pain on the left parotid area especially at the first bite of eating food for two days. Before the appearance of the symptom, there was no other related event to cause the pain. Under the impression of inflammation of parotid gland, conservative medications were given for 18 days without any improvement. The patient was referred to pain clinic. He was given a piece of chocolate and at the first bite a severe sharp electric shock like pain occurred on his left parotid area. Also there revealed several tender points on his left sternocleidomastoid muscle, masseter muscle, and temporal muscle. The numerical pain scale at the first bite was 10/10. The first day of treatment, he was given trigger point injections (TPI) [2] and left cervical plexus block with 10 ml of 1% lidocaine. After the injections the pain scale of the first bite was 2/10. After three days, the patient was given TPI with mandibular branch block of his left trigeminal nerve with 5 ml of 1% lidocaine and the pain was gone completely for a few hours. On the third visit (seven days after the first visit) the pain scale was 5/10. Oral medication (carbamazepine 200 mg and neurontin 100 mg daily) was added to TPI and mandibular branch block of 3 - 4 days' interval. After three more TPI and mandibular branch blocks with 28 days' oral medication the pain scale stayed 1 - 2/10 and before finishing taking the rest of the oral medication the pain disappeared completely. It's been more than a year since the patient became free of pain.

3. Discussion

The actual cause of the FBS is not clear. Reported cases are deep lobe parotidectomy [3], upper cervical surgery [4], ipsilateral carotid endarterectomy [5] [6], carcinoma of the submandibular gland [7], carcinoma of the parotid gland [8], resection of the styloid process [9], and other parapharyngeal space occupying lesions or surgery [10]-[14]. There is a suggestion that inadvertent ablation of the sympathetic nerve supply to the parotid gland is a cause of the FBS [15]. Actually, as we can see in the above several reported cases, other than direct parotid gland surgery could also cause the FBS. But this case revealed no special cause. For the treatment of FBS botulinum toxin injection [16]-[18], laser tympanic plexus ablation [19], and pharmacologic approach [4] [20] were suggested with no satisfactory effect. Linkov *et al.* [1] reviewed 45 FBS cases, got the result of partial resolution of FBS symptoms in 69% and complete resolution in 12%, and found that even no treatment consistently provided effective symptomatic relief. In this case trigger point injection [2] of the left masseter muscle, temporal muscle, and sternocleidomastoid muscle, with nerve block of the left mandibular branch of trigeminal nerve, and combined oral medication of small amount of antiepileptic drugs [21] were tried successfully. Considering the patient's response to the therapy, FBS might be another manifestation caused by myofascial pain syndrome with or without trigeminal neuralgia.

In conclusion, the authors experienced a case of FBS with no detectable cause, and treated successfully with the methods of trigger point injection, mandibular nerve block, and oral antiepileptic medication.

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