

# Facial Pain Occurs as a Result of Headaches and Migraines

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## Abstract

Neuralgia is the name for very strong pain in the area of a nerve. Facial neuralgia are particularly severe. One of the more common causes is pressure, usually on the nerve root, hard bony growths on the vertebrae, then various tumors, scars or deformities. Neuralgic pains also occur on a rheumatic basis, due to toothache, due to infections and poisoning. Pain can be severe, dull or devastating. Stress can also cause the condition to worsen. Neuralgia is only one of the possible causes of facial pain.

**Keywords:** Facial pain, Neuralgia, AFP, Injury, Health

## Introduction

Facial pain is common and may influence up to 50% of the elderly populace [1]. A paroxysm of horrifying wounding torment enduring as it where seconds in the trigeminal nerve conveyance proposes trigeminal neuralgia, especially in patients over 50 years of age. In the endless majority of cases, it is one-sided, most commonly influencing the mandibular and maxillary divisions. A ‘trigger area’ that is invigorated by washing or shaving, for illustration, may frequently be recognized from the history. Talking may be sufficient to fortify the torment. The conclusion is more often than not basic. Carbamazepine, gabapentin or phenytoin are the pillars of treatment. Microvascular decompression is some of the time used.

Other neurological causes of facial pain incorporate post-herpetic neuralgia and atypical facial pain. In post-herpetic neuralgia, the understanding complains of a burning pain (regularly in the ophthalmic division of the trigeminal nerve), which may get to be constant. There is no truly fruitful treatment; transcutaneous nerve segmenting and local analgesic penetration in the excruciating area has been attempted, as has carbamazepine. Tricyclic antidepressants have also been used.

When all other causes (counting non-neurological causes of facial pain) have been avoided, a few patients may still complain of facial pain – as a rule one-sided. The pain is depicted as serious, steady and not calmed by analgesics. This sort of torment is more common in youthful females, and numerous are endorsed antidepressants (in spite of the fact that not continuously to healing impact). ‘Atypical facial pain’ is the term connected to this sort of facial pain.

## Overview

- Trigeminal neuralgia [2].
- Glossopharyngeal neuralgia.
- Headache disarranges counting migraines, cluster headaches and temporal arteritis.
- Burning Mouth Syndrome.
- Atypical facial pain and atypical odontalgia.
- Local-teeth/jaws.
- Psychogenic-psychosomatic/atypical facial pain/ Burning mouth disorder → related anxiety/TMJ.
- Referred-Angina/oesophagus/neck/chest.
- Neurological-Trigeminal/MS/space-occupying lesion/herpes zoster.
- Vascular-Migraine/temporal arteritis/cluster headaches.

## Symptoms

- Paroxysmal pain: Seriously, lancinating, burning pain “like electric shock”—lasts seconds/minutes [2].

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- Recurrence varies-may be numerous times, nearly continuously unilateral.

Many patients have trigger points-stimulated each day, with period reduction and backslide, decline overtime.

- Eating.
- Talking.
- Washing.
- Shaving.
- Toothbrushing

## AFP

Atypical facial pain (AFP) is a disorder of frequently ineffectively limited pain, which is regularly depicted enigmatically as a profound, dull hurt, and does not fit a classical anatomical dispersion [3]. The correct nature of the mental component of this disorder is vague, but it is commonly related with other repetitive indications such as back throb and highlights of depression.

Atypical facial pain is best treated agreeing to the common standards of psychogenic pain administration, laid out in the going before content. There is prove that upper pharmaceutical can be compelling, especially tricyclic antidepressants (TCAs). TCAs such as amitriptyline ought to be utilized with caution, in any case, owing to the tall frequency of side impacts and poisonous quality in overdose. More up to date, particular serotonin reuptake inhibitor (SSRI) antidepressants may too be valuable, especially if there is a fundamental depressive sickness. Moreover, there is an expanding body of prove for the adequacy of CBT in the administration of inveterate pain syndromes.

Atypical facial pain, now and then alluded to as diligent idiopathic facial pain or atypical odontalgia, is a neuropathic pain condition that is regularly erroneously ascribed to dental pathology and can be troublesome to analyze [4]. The pain is ordinarily dull, hurting, or burning, and happens irregularly or continually all through the day. The range influenced is regularly ineffectively characterized; over time it can spread or move, in a few cases from one side of the confront to the other. Intraoral side effects are regularly at first related with a tooth or extraction location, or emerge in an zone taking after a few sort of surgical treatment. Comprehensive dental assessment is, in this manner, a significant component of the workup of a quite suspected to have AFP. In reality, numerous patients are treated pointlessly with root canal (endodontic) treatment or extraction of something else solid teeth, after which side effects continue. There is a solid affiliation with a history of anxiety/depression in patients with AFP.

The pain related with AFP tends to react most dependably to low-dose tricyclic antidepressants, counting amitriptyline and nortriptyline. If inadequately, expansion

of either gabapentin or clonazepam by and large gives encourage advancement. Topical drugs, counting capsaicin and clonazepam, can be arranged by a compounding drug specialist for intra- or extra-oral utilize. Given the affiliation with a history of anxiety/depression, nonpharmacologic methodologies must too be considered.

## Orofacial Pain

Orofacial pain clutters are a common clinical issue experienced by a quarter of the common populace, and almost 10% is incessant [5]. In the most recent International Association for the Study of Pain (IASP) classification of persistent torment, inveterate migraine or orofacial pain is characterized as headache or orofacial pain that happens on at slightest 50% of the days during at slightest 3 months, and enduring at slightest 2 hours per day. Tireless facial torment has an rate proportion of 38.7 per 100,000 individual a long time. It is more common in women and the frequency increments with age. Both intense and inveterate facial pain comes about in noteworthy impedance in quality of life. Patients with facial torment may involvement genuine challenges in regular exercises such as eating, brushing teeth, talking, and cleaning of the confront. These pain- related issues can adversely affect patients' psychosocial work for long periods of time.

Pain in the confront is for the most part isolated from headache. This is since transmission from the moment (maxillary) and third (mandibular) trigeminal branches is capable for pain in the facial locale, though headaches are due to pain transmission through the to begin with trigeminal (ophthalmic) department. The trigeminal nerves innervate various anatomical structures counting the lips, teeth, upper pharynx, uvula, delicate sense of taste, front two- thirds of the tongue, confront, muscles of rumination and facial expression, nasal and verbal mucosa, cornea, temporomandibular joints, dura mater, intracranial vessels, tooth mash, and ears. The tactile innervation of the confront, head, and neck is complex. The three branches of the trigeminal nerve and the upper cervical nerves (C2-C4) that innervate the back head and neck together shape the trigeminocervical arrange. This comes about in complex pain referral designs, and orofacial pain, headache, and neck pain are frequently closely related. In expansion, there are numerous anatomical structures in the head, confront, and neck that can be the source of pain. These incorporate the eyes, nose, teeth, tongue, sinuses, muscles, and temporomandibular joints. Anatomical complexity has regularly driven to challenges in shaping exact analyze in patients with orofacial pain. Successful treatment of incessant orofacial pain depends on a exact diagnosis. Since unremitting orofacial pain conditions are frequently complex and related with psychosocial brokenness, ideal administration requires a multidisciplinary biopsychosocial approach.

## **Injury**

The oral and maxillofacial region involves huge portion of human face [6]. Hence, if the orbital, lip and cheek, nose and other parts endure open wounds and are not treated appropriately, scar contracture may show up after the wound mends, driving to uprooting and distortion of typical tissues and organs and genuinely influencing the patient's appearance and brain research. Thus, whereas treating verbal and maxillofacial harm, clinicians ought to consider tasteful aspects.

Patients who bear oral and maxillofacial harm may moreover have physiological issues. With the accomplishments of brain research, perioperative mental changes gotten tall consideration. Numerous oral and maxillofacial surgical disarranges are frequently related with psychosocial components, such as tumors, essential temporomandibular joint muscle group spasm, oral and maxillofacial irregularities, psychogenic dental pain, psychogenic trigeminal neuralgia, different pains in the oral and maxillofacial locale related with menopause in women, irregular salivation, and remote body sensation in the mouth. A few of these disarranges can be caused by mental variables and may moreover lead to changing degrees of mental disorders. Oral and maxillofacial infections and mental disorders are persuasive unity.

## **Rhinosinusitis**

This can be an acute or chronic condition that influences the maxillary and other sinuses [7]. An acute rhinosinusitis is ordinarily related with a later viral upper respiratory contamination with a brief length of up to 4 weeks which "worsens" after a starting advancement. The understanding reports a purulent nasal release, nasal obstacle, a feeling of totality, and at times facial pain. Most acute scenes are viral and once in a while bacterial (as it were .5 to 2.0 %). An inveterate sinusitis is related with nasal congestions of more than 12 weeks or four yearly scenes. The incessant condition is more able to be related with bacterial disease but is not more often than not related with pain. The unremitting condition happens with stasis or need of clearing of the bodily fluid in the ostiomeatal complex. Verifiably, sinusitis has been over analyzed and treated with antibiotics with small efficacy.

Acute rhinosinusitis must be related with purulent release and with one of the taking after: with either nasal obstacle or facial pain or both. If facial pain happens but no purulent release is show, the condition does not coordinate the criteria for acute rhinosinusitis. A later or repetitive upper respiratory contamination is too exceptionally likely. One-sided pain upon palpation of the lateral divider of the maxillary sinus is frequently present.

Sinusitis (or rhinosinusitis) is characterized as an irritation of the mucous layer that lines the paranasal

sinuses and is classified to a few categories based on chronology of the infection [8]:

1. Acute: a modern disease that may final up to four weeks and can be subdivided symptomatically into extreme and non-severe.
2. Recurrent acute: four or more partitioned scenes of acute sinusitis that happen inside one year.
3. Subacute: a contamination that endures between four and 12 weeks and speaks to a move between acute and chronic infection.
4. Chronic rhinosinusitis: the signs and indications final for more than 12 weeks.
5. Acute worsening of chronic sinusitis: the signs and side effects of unremitting rhinosinusitis worsen but return to pattern after treatment.

The ordinary signs and indications of sinusitis are headache and facial pain, or a consistent dull weight (dull torment), or hurt over the influenced sinuses. This torment is ordinarily localized in the included sinus and may alter when the influenced individual twists over or lies down or during rumination. A feeling of "fullness" around the to begin with molar-second premolar range is regularly present.

Sinusitis may be gone with by thick nasal release and may contain discharge (purulent) and/or blood. Nasal release is considered a noteworthy sign of sinus infection.

Severe acute or subacute sinusitis seldom produces fever. In any case, as said some time recently, serious fulminant sinusitis may deliver tall fever.

In periapical chronic inflammation, the illness creates gradually, with no signifi can't contamination, and its spreading inside the sinus may be moderate and with negligible effect. On the opposite, intense irresistible pulpal illness is much more quickly spreading and damaging, including the adjoining sinus inside a brief time. There have been detailed cases of quick spread of dental contaminations through the maxillary sinus driving to ensuing periorbital cellulitis, visual deficiency, and indeed life-threatening cavernous sinus thrombosis, embodying the genuine potential complications of endo-antral syndrome (EAS).

The clinical examination of a quiet with suspected maxillary sinus disease ought to incorporate extraoral tapping on the front and sidelong dividers of the sinus over the unmistakable quality of the cheekbones and/or palpation intraorally of the horizontal surface of the maxilla between the canine fossa and the zygomatic buttress. If there is dental inclusion, the teeth will be tolerably or amazingly delicate to palpation and/or percussion. The torment regularly emanates to all posterior teeth in the quadrant, so that all these teeth ordinarily gotten to be delicate to percussion.

Selden named endo-antral syndrome (EAS) as the spread of pulpal disease past the limits of the dental supporting tissues into the maxillary sinus and underlined five radiographic highlights characterizing EAS:

1. Pulpal illness in a tooth whose pinnacle approximates the floor of the maxillary sinus
2. Periapical radiolucencies on pulpally included teeth
3. Radiographic misfortune of the lamina dura characterizing the second-rate border of the maxillary sinus over the pulpally included tooth
4. A faintly radiopaque mass bulging into the sinus space over the summit of the included tooth, associated not one or the other to the tooth nor to the lamina dura of the tooth attachment (speaking to localized swelling and thickening of the sinus mucosa)
5. Variable degrees of radiopacity of the encompassing sinus space (comparison to the contralateral sinus is frequently helpful)

Clinical cases do not continuously show with all five highlights; in this way, symptomatic and therapeutic decisions may be challenging.

In cases with maxillary sinus pathologies with far-fetched differential conclusion or with extreme signs and indications of sinusitis, discussion with an ear, nose, and throat (ENT) pro is strictly recommended.

## Migraine

The predominance of headache migraine in the common populace is said to be 10–15% [9]. Onset of indications is ordinarily between adolescence and the fifth decade. It is more common in women and there is regularly a family history. As it were approximately 10% of headache migraines show the classical signs of air (most commonly a visual marvel, but may take the shape of dysaesthesia in the ipsilateral appendage or confront and as a disposition alter) which goes before the migraine by 10–60 minutes. The characteristic include of headache is its throbbing nature, which is ordinarily one-sided in onset, but which may spread to include the entire head and confront and is went with by photo- and phonophobia and sickness. It endures for 4–72 hours and the sufferer are free of pain between assaults. Accelerating variables incorporate mental stretch, endocrine changes (such as feminine cycle) and dietary admissions (particularly tyramine-containing nourishments and unpredictable dinners). The aetiology is not completely caught on, in spite of the fact that there is without a doubt a vascular component. A rise in cerebral blood stream in the occipitoparietal cortex goes before the headache, and this is taken after by a 25% diminishment in stream spreading advances from the occipital locale. These changes appear to account for the side effects of air. The

headache itself is likely due to the dilatation of cranial non-cerebral vessels. Exploratory ponders in creatures propose that the trigemino-vascular framework is the last common pathway where the headache migraine is generated.

## Headache

This is an uncommon but imperative cause of one-sided facial torment [9]. It takes its title from the gathering together of assaults into clusters, comprising of 1–8 headaches per day for 3–12 weeks. Symptom-free periods of 3–18 months isolated the clusters. Diagnosis is now and then confounded with trigeminal neuralgia. A cautious history will uncover clear contrasts from TGN (trigeminal neuralgia) by term of assaults, related indications and worldly profile. Age of onset is between 20 and 40 years and there is a male–female proportion of 7:1. The pain is profound and throbbing and is amazingly serious. It may show up at the same time each day during a cluster and may wake the subject from rest. There are continuously related autonomic marvels such as nasal blockage, infused conjunctivae and facial sweating. Each assault keeps going for 15 minutes to 3 hours.

Considering that muscle accounts for approximately 30% of body weight, it is neglected shockingly frequently as a source of persistent pain. Need of a determination quickly comes about in dissatisfaction for the doctor and misfortune of certainty in his or her capacities by the patient.

This is portrayed as a profound, dull, throbbing, pressure-like pain which may be uni- or reciprocal, and of progressive or sudden onset. There are no neurological variations from the norm. Myofascial torment is as a rule related with trigger focuses in the muscle and its encompassing belt, which allude either locally or to a removed location which is ordinarily disconnected dermatomally or myotomally. Trigger focuses are substantial as delicate groups inside the muscle which, when squeezed, will either duplicate the patient's torment or allude it to a characteristic reference zone. Trigger focuses are thought to emerge taking after muscle injury, either as a single occasion or a rehashed microtrauma, such as destitute pose or teeth pounding. Certain muscles show up to be especially inclined to creating trigger focuses, counting sternomastoid, temporalis, pterygoids, trapeziums and neck strap muscles. Torment is frequently alluded forward from the occipital locale to the sanctuary, brow, circle or ear.

## TMJ

When anatomical unsettling influence of the TMJ (Temperomandibular joint) happens, a related myofascial disorder commonly creates [9]. TMJ issues show themselves as clicking or popping in the joint, pain on chewing or mouth opening and locking if the inside

confusion is serious. Myofascial pain as a rule shows up on the influenced side, in spite of the fact that it may in time gotten to be reciprocal as a result of a common persistent straining of head and neck muscles and suspicion of a defensive pose. A sensation of completion or blockage in the ear may be specified. Determination is affirmed by watching confined mouth-opening (less than 40mm inter-incisal), evoking TMJ delicacy and clicking, there will more often than not be trigger focuses in related muscle groups, in specific the average and sidelong pterygoid muscles.

## Conclusion

Facial pain refers to a prolonged feeling of pain or discomfort that occurs in any part of the face, including the mouth, eyes, and ears. In most cases, pain in the face occurs as a result of headaches and migraines. In some cases, pain in the face is the result of injury or other diseases. Regardless of whether the cause of the pain is known or not, patients who feel pain in the face are advised to visit a specialist doctor, namely an otorhinolaryngologist, dentist, gnathologist or maxiofacial surgeon, in order to establish an accurate diagnosis and start treatment in time.

## Compete of Interests

The authors declare no competing interests.

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