Chronic Idiopathic Orofacial Pain: Is it in your mind?

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Injury without pain --------→ congenital analgesia

Pain without injury --------→ idiopathic pain
How to measure --------→ Hx. Taking 80%
Pain Models

• Biomedical Models
• Psychiatric Models
• Biopsychosocial Models

Biomedical Models
• Pain is always a sign of tissue damage or compromise
• Greater tissue damage: greater levels of pain

Psychiatric Models
• Pain in the absence of observable pathology is “Psychogenic” i.e., the somatic expression of unresolved emotional conflicts
• Certain personality types are more prone to developing pain than others

Biopsychosocial Model
• Pain is a multifactorial phenomenon: interaction of biological, psychological and social factors
• Physical and psychological operate at all levels of the pain experience

Affective dimension of pain:

2 stages mechanism:
1. Primary: immediate experience akin to hypervigilance or fear
2. Secondary: body state awareness of strong negative subjective experience

Multiple dimensions of pain experience

Physiological dimension: location
onset
duration
cause
syndrome

Sensory dimension: intensity
quality
pattern
Cognitive dimension: meaning of pain
- view of pain
- coping skill and strategies
- previous treatment
- attitudes and beliefs
- factors influencing pain

Behavioural dimension: communications
- interpersonal interaction
- physical activity
- pain behaviours
- medications

**Clinical features of atypical facial pain**
- **Duration**: 2-21 years
- **Periodicity**: varies from constant daily pain to months that are pain free
- **Character**: deep poorly localized pain burning, vicious, throbbing, stabbing, nagging
- **Site**: usually unilateral, 14% bilateral
- **Radiation**: in 83% of cases

**Behavioural dimension: interventions**
- sleep

**Sociocultural dimension: ethnocultural background**
- family and social life
- work and home responsibility
- recreation and leisure
- environmental factors
- attitude and beliefs
- social influences

**Severity**: mild to severe, VAS ~ 6.7

**Provoking factors**: stress, cold weather, chewing, head movement, life events

**Relieving factors**: local warmth and pressure, medication

**Associated factors**: may follow trauma, psychiatric condition, altered sensations, lacrimation, facial swelling & flushing

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**Chronic idiopathic orofacial pain**

**Definition**: a condition of facial pain without known origin or abnormality

**Eg.**
- Atypical facial pain
- atypical odontalgia
- glossopyrosis (burning tongue)
- facial arthromyalgia

**Psychological associations**: depressions, psychiatric diagnosis, psychosis, hysteria
Management:
1. Establish and advice patients of diagnosis
2. Reassure and explain possible aetiology or exacerbating factors
3. Empathise with patient
4. Discuss with patient for:
   (i). Antidepressant: if pain is a major problem
   (ii). Cognitive behavioral therapy (CBT): if life is affected by pain
5. Review patient regularly with regard to symptoms, psychological status and ability to cope with the condition

Atypical odontalgia:
Duration: 2 months to 20 years
Periodicity: continuous or last from a few minutes to hours
Character: severe throbbing, aching
Site: teeth and gingivae
Radiation: to other teeth

Glossodynia and Sore Mouth
(also known as Burning Tongue or Oral Dysaesthesia)

Definition
Burning pain in the tongue from any cause.

Site
Most often tip and lateral borders of glossal mucosa. Palate and lips are often involved and sometimes other buccal mucosa, sometimes even the latter alone.

System
Cutaneous
Main Features
Prevalence - common; Age of onset - mainly over 50 years of age; Sex - women predominate; Quality - burning, superficial pain; may be throbbing. Time Pattern - recurrent and variable, persisting for 5-10 days at a time or continuously. Intensity - usually mild, sometimes very severe.

Severity: varies from mild to severe
Provoking factors: hot and cold, pressure on tooth
Relieving factors: antidepressant, counselling, avoidance of unnecessary pulp extirpation or extraction
Associated factors: bruxism, hypersensitivity to heat or cold, emotional problems, anxiety or depression.
Associated Symptoms
Taste is often subjectively altered. Some patients are uncomfortable with their bite. Aggravated by local surface irritants or sometimes hot foods. Some patients are overtly depressed. Topical anaesthetic applied to the site of pain arrests it.

Usual Course
Months or years. May be intractable. May respond to antidepressant drugs or calcium antagonists.

Complications
Secondary emotional changes.

Site
Preauricular, temporal, zygomatic, occipital, temporomandibular.

System
Musculoskeletal

Diagnostic Criteria

Pathology
Unknown, but clinical presentation bears a strong relationship to adverse life events.

References
Main Features

Prevalence: young adult, middle-upper class; there may be a history of mild trauma to face or jaws, history of recent psychosocial stress common. Age of Onset: most often 15-35 years, range 5-55 years. Sex Ratio: strong female predilection. Start: evoked by mandibular opening. Teeth clenching or occurs spontaneously during sleep or with stress. Occurrence: episodic with mandibular function, neck flexion and spontaneously. Intensity: variable from dull ache to severe distress. Duration: minutes to hours, sometimes persisting for years.

Associated Symptoms
Clicking or popping of temporomandibular joint, tinnitus, rarely facial auricular paraesthesias, occasional depression or anxiety, relief by local anaesthetic injection of trigger zones. May also be associated with other facial pains e.g. atypical odontalgia, pain of psychological origin.

Signs
Varying malocclusion, restricted mandibular opening, temporomandibular joint crepitus, subluxation, tenderness on palpation of muscles of mastication.

Laboratory Findings
Elevated electromyograph voltage in masticatory muscles with trigger zones. Increased "silent period" of the masseteric chin tap reflex.

Radiographic Findings
Normal temporomandibular joint radiographic structure, variable meniscus displacement with arthrography. Occasional pre-senile osteoarthrosis.

Usual Course
Variable, dependent on resolution of complex multiple factors of trauma, myofascial trigger points, and psychosocial stress response. Often responds to benign physical measures including bite guards and reassurance, and to counselling.

Complications
Possible degenerative joint disease with long duration of trauma. Secondary iatrogenic medical surgical disease.

Social and Physical Disability
Interference with mastication, social, vocational and sexual activity, development of secondary psychological changes.

Pathology
Unknown.

Summary of Essential Features and Diagnostic Criteria
Muscle tenderness, temporomandibular joint clicking, mandibular dysfunction, high psychophysiological stress response. Dull ache with severe exacerbations. Frequently long standing. Associated with trismus, clicking, locking of the joint and bruxism. Related to adverse life events. Association with malocclusion unproven.
Differential Diagnosis
Degenerative joint disease, rheumatoid arthritis, traumatic arthritis, temporal arteritis, otitis media, parotitis, mandibular osteomyelitis, stylohyoid process syndrome, deafferentation pains, pain of psychological origin.

Cognitive Behavioural treatment
Aims: Teach the patient to monitor and evaluate negative thoughts and to generate more accurate and adaptive thoughts.

Technique:
1. Explain the gate control theory of pain
2. Help them to recognize their negative thought and give them alternative positive thoughts.

Open gates
- Overexertion
- Muscle tension
- Anxiety
- Depression
- Anger
- Worry
- Increase attention to pain

Close gate
- Muscle relaxation
- Heat or ice
- Happiness
- Mental relaxation
- Attention focus on something
- Coping self statement

Summary
Management of non dental pain facial pain
- Careful diagnosis – history, exam, investigations
- Medical – analgesics, anticonvulsants, antidepressants
- Surgical – mainly trigeminal neuralgia
- Psychosocial – cognitive behaviour therapy, relaxation, biofeedback
- Patient information – in control, makes decisions, takes responsibility.

Summary
Achieved by the use of:
- Evidence-based methodology
- Effective narrative
- Patient centred approach
- Biosychosocial approach
Case study Mrs CB

48 year old presented with sore tongue December 2005
HPC: first began 2 years ago and is gradually getting worse
Constant burning, affects tongue, lips palate intensity VAS 6/10
No provoking or relieving factors
Mouth feels dry at times with bad taste
o/e nil, partially dentate
Was referred to oral surgeon who found she was anaemic, now her iron status is normal but no difference to pain. Has used difflam oral rinse and dosulepin with no help.

Mrs CB Problems

- Lack of diagnosis
- Lack of reassurance not cancer
- Multiple treatments
- Has few leisure activities

Mrs CB

In a patient with burning mouth syndrome who has tried multiple treatments and is depressed would treatment with tricyclic depressants provide the best pain relief and improve quality of life?

Zakrzewska JM., Glenny AM, and Forssell H. Interventions for the treatment of burning mouth syndrome. The Cochrane Library
http://www.update-software.com/cochrane/
Zakrzewska JM, Glenny AM, Forsell H. Interventions for the treatment of burning mouth syndrome. J. Orofacial Pain: 2003; 17; 293-300

Prepare a PICO for Mrs CB patient intervention comparison outcome
Burning mouth syndrome.
Buchanan J, Zakrzewska J.

Clinical Evidence
Updates: www.clinicalevidence.com

Overall summary of RCTs
May be beneficial
• Cognitive behaviour therapy (CBT)
• Topical clonazepam
• Gabapentin
Unknown efficacy
• HRT
• Dietary supplements
• Benzydamine hydrochloride
• Antidepressants
Not effective
• Topical analgesia

Mr AK’s problem list
• Unexplained pain not just oral but widespread
• PMH – NIDDM, cardiac problems
• SH lonely, no leisure activities
• ? Illness beliefs

What treatment for Mrs CB?
• CBT
• Gabapentin

Diagnosis, reassurance, education

Case Study Mr AK
56 year old Kenyan man presented with facial pain in March 2004
HPC: three years ago developed pain intra-orally after having two dental extractions in the lower quadrants.
Went back to his dentist who root filled another molar and as this gave no relief extracted the tooth but this gave no relief.
Referred by dentist for a diagnosis

Prepare a PICO for Mr AK
patient intervention comparison outcome
PICO Mr AK

In a middle aged man with chronic idiopathic facial pain would treatment with tricyclic antidepressants be as effective as a course of cognitive behaviour therapy in order to reduce pain and improve quality of life?

CBT and Pain


Comparison of antidepressant medication alone and in conjunction with cognitive behavioural therapy for chronic idiopathic facial pain: Harrison et al Proceedings of 6th World Congress on Pain IASP Press. 1997-8, 663-672

Systematic reviews

- Antidepressants for neuropathic pain Saarto T Wiffen PJ Cochrane Database of systematic reviews 2005

Aims of cognitive change

- Reduce distress caused by pain – acceptance
- Reduce depression
- Lessen fear
- Reduce frustration
- Increase control
- Decrease healthcare

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Fluoxetine 20mg and CBT

Double blind randomised controlled trial 178 for three months Groups with and without CBT, active, placebo
- Multidimensional pain inventory MPI
- MPQ
- Beck Depression
- Spielberger state trait anxiety

– Harrison et al 1997
How would you manage Mr AK?

- Tricyclic antidepressant
- CBT
- Ensure treatment goals addressed