Facial Pain

Facial pain has a long list of possible causes but the diagnosis can often be made by a good history and examination. The common causes are often benign and self-limiting but it is essential not to miss those conditions that require urgent treatment - eg, temporal arteritis, or early diagnosis - eg, malignancy. There is a tendency to overdiagnose bacterial sinusitis when the real cause may be a viral upper respiratory tract infection or, much less frequently, a more serious cause of facial pain.

Causes[1]

- Sinus: sinusitis, trauma, carcinoma.
- Nose: upper respiratory tract infection, nasal injury and foreign bodies.
- Ear: otitis media, otitis externa.
- Mastoid: mastoiditis.
- Teeth: dental abscess.
- Local soft tissue infection: cellulitis, erysipelas.
- Neurological: trigeminal neuralgia, herpes zoster.
- Parotid gland: mumps, other causes of parotitis, abscess, duct obstruction, calculi, tumour.
- Eye: orbital cellulitis, glaucoma.
- Temporomandibular joint dysfunction and pain.
- Cluster headaches, migraine.
- Temporal arteritis.
- Tumours: nasopharyngeal, oral, posterior fossa, brainstem gliomas.
- Bone: maxillary or mandibular osteitis, cyst.
- Atypical facial pain: more common in the elderly and in women; often linked with depression.
- Lung cancer (upper lobe).[2]

Presentation[3]

Symptoms

- Site:
    - Pain in the region of the ear may be referred from the skin, teeth, tonsils, pharynx, larynx or neck.
    - Tenderness over the maxilla may be due to sinusitis, dental abscess or carcinoma.
- Character:
    - Trigeminal neuralgia: intermittent sharp, severe pain in the distribution of the divisions of the trigeminal nerve.
    - Infections of teeth, mastoid and ear: often dull, aching quality.
- Precipitating factors:
    - Precipitated by food or chewing: dental abscess, salivary gland disorder, temporomandibular joint disorder or jaw claudication due to temporal arteritis.
    - Trigeminal neuralgia: even the slightest touch of the skin causes intense pain.
- Associated symptoms:
    - Obstruction of the lacrimal duct by nasopharyngeal carcinoma may cause watering of the eyes.
    - Otorrhoea and/or hearing loss suggest an ear or mastoid cause.
    - Nasal obstruction and rhinorrhoea may be due to maxillary sinusitis or carcinoma of the maxillary antrum. Carcinoma of the maxillary antrum may also present with unilateral epistaxis.
    - Proximal muscle weakness and pain may be due to polymyalgia rheumatica, associated with temporal arteritis.

Signs

- Unilateral erythema and vesicles in the distribution of the trigeminal nerve: herpes zoster infection (may not be present in the early stages of the disease).
- Localised erythema or swelling: localised infection or carcinoma.
- Inspection of the nose and throat may demonstrate a nasopharyngeal tumour.
- Facial palsy: may be due to a tumour of the parotid gland.
- Tenderness of the superficial temporal artery associated with temporal arteritis.
- Cervical lymphadenopathy: infection or carcinoma.

Investigations

- FBC: raised white cell count in infection or malignancy.
- ESR, CRP: increase in infection, malignancy, temporal arteritis.
- X-rays:
    - Opacification of the sinus and destruction of bone with carcinoma of sinuses.
    - Opacification may also occur in sinusitis.
    - Mastoid films may show opacification in cases of mastoiditis.

- MRI scan with and without gadolinium is the investigation of choice. CT scan with contrast is less useful because there is less resolution of the cranial nerves and posterior fossa. .[1]
- Sialography: parotid conditions - eg, duct stones, sialectasis.
- Fine needle aspiration: parotid tumours.

Management

- The essential aspect of management in primary care is to make an accurate diagnosis. The management will then depend on the identified cause of facial pain.
- The first-line treatment for atypical facial pain is a tricyclic antidepressant such as amitriptyline. Fluoxetine and venlafaxine can also been considered.[4] Peripheral subcutaneous field stimulation may be an alternative for patients with intractable pain.[5]
- Specialist referral should be made according to local guidelines. One such guideline suggests referring patients who have:[6]
    - Facial pain persisting for more than three months.
    - Persistent temporomandibular disorders not responding to simple analgesics, lifestyle changes and reassurance.
    - Persisting pain affecting function and causing distress.
    - Widespread pain.
    - Pain which is part of systemic disease.
    - Significant psychological or social problems.
    - Co-existing mental health problems which have an impact on treatment.
    - Compliance problems - eg, side-effects.
    - A recognised pain syndrome such as trigeminal neuralgia.
    - Patients with special needs - eg, learning disabled, communication problems.

Further reading & references

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