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10-MINUTE CONSULTATION

Otalgia

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This is part of a series of occasional articles on common problems in primary care. The *BMJ* welcomes contributions from GPs

Case history

A 35 year old patient presenting with a three day history of unilateral otalgia and fever is diagnosed as having acute otitis media and prescribed amoxicillin. He returns three days later with persistent fever and headache.

What you should cover

History

Pain varies widely from severe pain of acute otitis media to the deep boring otalgia of malignant otitis externa (pseudomonal osteomyelitis of the temporal bone). Sharp lancinating pain indicates neuralgia.

Otorrhoea—purulent otorrhoea can follow acute otitis media, but if it is persistent cholesteatoma may be present. Watery otorrhoea is seen in otitis externa, but after head injury it indicates a leak of cerebrospinal fluid.

Hearing loss may be seen in all the above conditions.

Itching is a cardinal symptom of otitis externa.

Tinnitus is not a disease specific symptom.

Vertigo and headache are unusual—they may indicate a complication of otitis media.

Otalgia can precede Bell's palsy (idiopathic facial nerve palsy) but is usually more severe and persistent with Ramsay Hunt syndrome (herpes zoster oticus). Pain can be associated with lesions of the pinna—tender nodules (chondrodermatitis nodularis helices), haematoma, or laceration.

Referred otalgia is common and may account for 50% of cases (box). It occurs with tonsillitis and quinsy and after tonsillectomy, but if sore throat develops rapidly (often <24 hours) with dysphonia, epiglottitis is more likely. Pain on chewing indicates a dental, temporomandibular joint, or parotid problem. Otalgia presenting with dysphagia or dysphonia can be associated with pharyngeal tumours. A sharp lancinating pain arising

Causes of referred otalgia

Paranasal sinus infection
Teeth:
Teeth grinding
Molar impaction
Infection or abscess
Pharynx:
Acute tonsillitis or quinsy
Epiglottitis
After tonsillectomy
Parotid gland:
Calculi
Infection
Trauma
Neck problems:
Goitre
Lymphadenopathy
Musculoskeletal problems
Cervical spine
Malignancy:
Tongue base, tonsil, nasopharynx, hypopharynx
Neuralgia:
Trigeminal neuralgia

Useful reading

Ludman H, Wright T. *Diseases of the ear*. 6th ed. London: Arnold, 2002.

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KEY POINTS

Findings on otoscopy are usually diagnostic for earache

Patients with persistent pain, cranial nerve involvement, headache, and vertigo may need referral

Referred otalgia may originate from the temperomandibular joint, teeth, pharynx, and larynx

in the tonsil area and radiating to the ear suggests trigeminal neuralgia.

Otological history—ask about previous ear disease or operations and recent trauma.

Other history—ask about recent flying or swimming, diabetes, or an immunocompromised state.

Examination

Inspect for pinna haematoma, laceration, and tender nodules, previous scars, pinna displacement, or a postaural swelling and palpate for mastoid tenderness (mastoiditis).

Otoscopy is diagnostic in most cases and may show a bulging drum in acute otitis media, external canal vesicles with Ramsay Hunt syndrome, canal oedema or debris (otitis externa), a tender meatal swelling (furunculosis), granulation tissue or aural polyp (chronic suppurative otitis media, malignant otitis externa, or tumours). Cholesteatoma may be visible but is often obscured by mucopus.

If the diagnosis is not apparent then look for causes of referred otalgia. Palpate the temporomandibular joint; examine the teeth, oral cavity, parotids, and the nose for sinonasal infection; and palpate the neck for a goitre, lymphadenopathy, and musculoskeletal tenderness.

The facial nerve can be involved with acute otitis media, mastoiditis, Bell's palsy, or a temporal bone fracture.

What you should do

- For acute otitis media treat with a five day course of amoxicillin in children and augmentin in adults. In chronic otitis media with cholesteatoma, refer. Pinna haematoma, laceration or painful nodule, refer
- Prescribe topical antibiotic or steroid drops for otitis externa (short term to prevent fungal infections). If there is excessive debris or canal stenosis, refer the patient.
- Furunculosis should be treated with oral flucloxacillin
- Swimmers can try ear protection (ear plugs), and patients experiencing barotrauma can apply a nasal decongestant (xylometazoline, for example) with regular Valsalva manoeuvre before they fly
- Any case of suspected mastoiditis or complicated otitis media (such as facial nerve palsy) should be referred urgently
- For Bell's palsy and herpes zoster give oral prednisolone and aciclovir and refer for follow-up
- If the ears are normal look for causes of referred otalgia and refer if pain persists or the diagnosis is uncertain
- Trial carbemazepine for trigeminal neuralgia
- If there is no early response to antibiotics then continue antibiotics for seven days and advise the patient to return if there is no improvement.

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Pink scrubs

My fellow medical students and I peer through the window into the operating room. It is filled with busy people in a sea of pink and blue scrubs—our first look into the world of surgery.

It is my first clerkship in 1987. Having grown up with my father being an eye surgeon, I find the operating room intriguing. I feel connected with our attending physician and the other three students, all men.

"Change into scrubs and meet me in the OR in 10 minutes," our attending physician says, as he and the three male medical students file into the men's locker room. It is the first time I feel different from my fellow students. I go by myself to the women's locker room.

Piled high on carts are pink scrubs—not pastel, not fuchsia, but true pink—in all sizes. I look again through another small window into the operating room. Men in blue scrubs work with an air of authority. Buzzing around them are women in pink hats, pink scrubs, pink shoe covers. As far as I can ascertain, there are no pink female surgeons.

"Nope," I think to myself, "no way am I going out there in pink." I walk out of the women's locker room and check the hall. No one is there. Not knowing what to expect, I open the door to the men's locker room. I fear I will come face to face with men in compromising stages of undress. Just inside, I find shelves of blue scrubs and grab a pair. Fortunately, I see no one.

I return to the women's locker room, put on the blue scrubs, and walk out into the operating room area. I feel guilty for deserting my sisters in some way, but I refuse to be relegated to the ranks of pink. I join my group; we wear the same uniform. I wait for comments on my attire, but none occurs. Later, one of my fellow students asks where I obtained the blue scrubs. "In the men's locker room," I reply. "I didn't want to wear pink."

Today, my medical students tell me there are no more pink scrubs. Everyone wears green.

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