

**SPECIAL REPORT**

# Short diagnosis guidelines for craniocervical and facial pain

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**ABSTRACT**

Pain is a very frequent symptom, being defined as an abnormal sensation, sometimes awkward and disturbing, which starts from a certain part of the body and is perceived by the brain. There is a vast and complex pathology that can have as presenting symptom the pain. In these cases, the positive and the differential diagnosis represent the key point in the chosen therapeutic strategy. The authors present a short diagnosis guideline for craniocervical and facial pain.

**KEYWORDS:** pain, sinusitis, tumor, mastoiditis, neuralgia

**INTRODUCTION**

Pain is a very frequent symptom, being defined as an abnormal sensation, sometimes awkward and disturbing, which starts from a certain part of the body and is perceived by the brain. There is a vast and complex pathology (ENT, ophthalmologic, rheumatologic, neurological disorders) that can have as presenting symptom the pain. In these cases, the positive and the differential diagnosis represent the key point in the chosen therapeutic strategy<sup>1</sup>.

In ENT practice almost 80% of patients presenting for consultation invoke pain as the primary symptom. Pain in otorhinolaryngology is multifactorial, its complexity deriving from the extremely rich innervation and vascularization of the cephalic extremity.

These short diagnosis guidelines, presented in the following tables, may be useful to the specialist, whether otorhinolaryngologist, neurologist or general practitioner, in evaluating the patient with craniocervical and facial pain and in performing the differential diagnosis of pain syndromes<sup>1,2</sup>.

A	Pain of nasal origin	Pain site	Typical symptoms
1.	Nose and upper lip furuncle	Nose Upper lip	
2.	Nasal obstruction: septal deviation; hypertrophy of inferior nasal turbinates; foreign body; tumor	Diffuse, intermittent, with frontal or periocular localization	Feeling of fullness and tension
3.	Vasomotor rhinitis Allergic rhinitis	Diffuse Frontal, interocular	Feeling of tension Watery rhinorrhea Sneezing
4.	Frontal, ethmoid and maxillary sinusitis	Supra-orbitary pain Pain at the root of nose Sub-orbitary pain	Intermittent pain “Full head” feeling Pain is exacerbated by bending the head Exacerbations during certain parts of the day
5.	Sphenoid sinusitis	Skull, vertex, occiput	Intermittent pain “Full head” feeling Pain is exacerbated by bending the head Exacerbations during certain parts of the day
6.	Atrophic rhinitis (ozena)	Diffuse	Obtuse pain, feeling of dryness, crusts
7.	Rhinosinusal tumors	Deep intracranial localization	Constant, gradually intolerable pain

<b>B</b>	<b>Pain of pharyngeal origin</b>	<b>Pain site</b>	<b>Typical symptoms</b>
1.	Acute tonsillitis Peritonsillar abscess	Diffuse pain in the oropharynx	Pressing pain Dysphagia
2.	Retropharyngeal abscess	Occipital pain	Pressing pain Dysphagia
3.	Styloid syndrome	Pain in the oropharynx Auricular radiation	Sensitivity to touching the tonsillar lodge Pain aggravated by head movements
4.	Oro- and hypopharynx tumors	Localization depends on the tumor site	Persistent pain

<b>C</b>	<b>Pain of otologic origin</b>	<b>Pain site</b>	<b>Typical symptoms</b>
1.	External otitis Furuncle of the external auditory canal	Auditory canal Periauricular region Temporomandibular joint	Intense, shooting pain Pain is accentuated by pressing on the tragus
2.	The geniculate region	External auditory canal Periauricular region Temporomandibular joint	Vesicles in the canal and on the pavilion
3.	Acute otitis media	Deep auricular pain with temporal radiation	Shooting, throbbing pain, with greater intensity during the night Tinnitus Hypoacusis
4.	Mastoiditis	Retroauricular, mastoid pain	Pain triggered by the pressure on the mastoid
5.	Petrositis	Unilateral pain, radiating towards the cranial vault	
6.	Cholesteatoma	Hemicrania with occipital radiation	Vague, dull pain
7.	Tumors of the temporal bone	Diffuse localization	Vague pain until the dura mater is affected, moment when it becomes intense

<b>D</b>	<b>Pain of dental origin</b>	<b>Pain site</b>	<b>Typical symptoms</b>
1.	Pulpitis	Pain localized at the level of the diseased tooth, radiating towards the ear	
2.	Impacted tooth	Pain when pressing on the upper molars	Intermittent pain, stimulated by chewing Trismus
3.	Periodontitis and dental abscess	Deep pain next to the diseased tooth, with auricular radiation	Atrocious pain to thermal stimulation or chewing
4.	Inflammation of the jaws	Pain localized at the level of the dental infection	Persistent, intense pain Swelling of the soft tissues Trismus

E	Vasomotor cephalalgia	Pain site	Typical symptoms
1.	Vasomotor cephalalgia	Forehead Temporal region Bilateral localization Vertex	Pain is diffuse, throbbing It lasts from a few hours to a few days Insomnia It can be induced by the weather condition or alcohol
2.	Migraine	Hemicrania Periodic crises Variable intensity Turgor of the temporal vessels	Deep pain associated with vegetative phenomena (nausea, vomiting) Abrupt onset and end Visual scotomas
3.	Cluster cephalalgia	Strictly unilateral site, temporal or ocular Radiation throughout the hemicranium Hypersensitive scalp	Shooting pain Ocular congestion, tearing Rhinorrhea Nasal obstruction Duration of 1-2 hours Pain recedes to nitroglycerin or histamine

F	Neuralgias	Pain site	Typical symptoms
1.	Trigeminal neuralgia	Unilateral, intense, repeated crises, always localized in the same area Trigger areas: V1 – sub-orbital hole, eyes, forehead, back of the nose, the nasal bone itself V2 – supra-orbital hole, upper maxillary, cheek V3 - mental foramen, mandible, tongue	Flashing pain, triggered by eating or talking It lasts a few seconds It appears when touching the trigger areas
2.	Neuralgia of the glossopharyngeal nerve	Unilateral Localized at the base of the tongue, tonsil, hypopharynx	Painful intense crises triggered by eating and phonation The body is bent towards the healthy part
3.	Neuralgia of the superior laryngeal nerve	Unilateral pain located in the neck It radiates towards the ear and the sternum Trigger area - horn of the hyoid, cricothyroid membrane	Continuous pain
4.	Charlin Syndrome (nasociliary neuralgia)	Internal cantus; root of the nose Ocular signs Trigger area - the internal cantus	Tearing, conjunctivitis Sneezing Rhinorrhea Disappears with anesthesia of the ciliary nerve
5.	Sluder's neuralgia (sphenopalatine ganglion)	Root of the nose Upper maxillary, teeth Temporal radiation The principal signs are those of the nose	Intense, continuous pain or nocturnal crisis Rhinorrhea Sneezing Pain is unilateral More frequent in women It recedes by anesthesia of the sphenopalatine ganglion
6.	Auriculotemporal neuralgia	Pre-, intra- and periauricular pain Temporal radiation	Local sweating, hyperesthesia Triggered by mastication It accompanies parotid disorders

G	Cephalalgia of vertebral origin	Pain site	Typical symptoms
	Cervicarthrosis Trauma Cervical hyperextension Myalgia (muscular tension) Cervical migraine	Occipital Radiates towards the vertex Brachial radiation	Steady, non-throbbing pain at the back and base of the skull Slow, progressive onset Trigger area – occipital, Arnold nerve, vicious positions

H	Pain of mandibular origin	Pain site	Typical symptoms
	Osteomyelitis Arthritis, mandibular arthrosis Costen's syndrome	Diffuse pain, radiating in the whole head Located at the level of the temporomandibular joint	Diffuse, excruciating in osteomyelitis Dull, accentuated by the mobilization of the mandible Dental articulation disorders

I	Pain of ocular origin	Pain site	Typical symptoms
1.	Keratitis	Pain localized at the anterior pole of the eye	Persistent pain in case of corneal ulcer or foreign body It recedes at anesthesia of the cornea
2.	Accommodation and refraction errors	Retro-ocular pain Temporal radiation	Cephalalgia after prolonged reading
3.	Muscular asthenopia	Pain localized at the level of the orbit and periorbitally	Feeling of pressure (it can mimic migraine)
4.	Iridocyclitis	The eyeball and periorbitally	Feeling of intraocular pressure, photophobia
5.	Optic neuritis	Pain of the back of the orbit	Progressive pain, associated with vision loss
6.	Acute glaucoma	Pain of the eyeball Radiates towards the forehead, maxillary, teeth, occiput	Sudden pain Red eye
7.	Chronic glaucoma	Ocular and above the eye pain	Pain is permanent

J	Cephalalgia of endocranial origin	Pain site	Typical symptoms
1.	Ramolism Intracerebral hemorrhage	Unilateral cephalalgia	Brutal onset Focal neurological signs Vomiting
2.	Meningeal hemorrhage	Diffuse pain	Brutal onset Consciousness disorders Vomiting Meningeal signs
3.	Meningo-encephalitis	Diffuse pain	Meningeal signs
4.	Brain tumors Subdural hematoma Cerebellar abscess	Diffuse pain	Deep pain Intracranial hypertension Papilledema Focal neurological signs Vomiting
5.	Intracerebral hypotension	Diffuse pain	Appears in orthostatism and disappears in clinostatism

## REFERENCES

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