



PROTOTYPICAL SIGNS OF THE OROFACIAL REGION-EYES SEE WHAT THE MIND KNOWS

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ABSTRACT

Many systemic diseases have unique oral manifestations that can aid a primary-care clinician in making a diagnosis. Careful oral examination may reveal findings suggestive of a systemic disorder. The fact that the oral mucosa may reflect internal processes of the whole organism is ancient knowledge. Therefore, it is extremely important to know that the oral mucosa plays a role in numerous systemic diseases, in some cases oral symptoms being the first manifestation of a disease. In the present review discusses some of the significant signs which act as clinical guide.

INTRODUCTION

The mouth is a powerful diagnostic tool in the clinical assessment of systemic health. Peculiar oral findings have been reported in various diseases. The presence of these specific oral lesions is not only helpful in detecting underlying systemic diseases but may also indicate the severity of such systemic diseases. In addition, significant improvement in systemic health has been reported following the treatment of associated oral lesions. This present article reviews various oral signs observed by an examiner that are visible, palpable or elicited by direct manipulation as a manifestation of systemic diseases (Anupama A Sattigeri, 2013).

Antenna sign: Individual follicles show a long strand of keratin glinting when examined in light that resembles antenna which is seen in keratosis pilaris.

Asboe-Hansen Sign: Asboe-Hansen sign was described in 1960 by Gustav Asboe-Hansen, a Danish dermatologist. This sign is also known as blister spread sign or nikolsky's sign which refers to the ability to enlarge a blister in the direction of the periphery by applying mechanical pressure on the roof of the intact blister spreading of a blister into a clinically

normal skin when lateral pressure is applied on the edge of a blister. (e.g., pemphigus, bullous pemphigoid)

Auspitz Sign: Heinrich Auspitz observed this clinical sign appearance of a red, glossy surface with pinpoint bleeding on removal of the scale by scraping or scratching. This occurs as a result of removal of overlying suprapapillary epithelium with subsequent rupture of dilated dermal capillaries. (e.g., psoriasis)

Battles sign: Seen in sub condylar fractures and fractures involving the base of the skull. Battle's sign consists of bruising over the mastoid process, as a result of extravasation of blood along the path of the posterior auricular artery. The sign is named after William Henry Battle.

Bell's sign: The turning up of the eyeball on the affected side when a patient with Bell's palsy attempts to close the eyelid. this is due to a synkinesis of central origin involving superior rectus and inferior oblique muscles.

Black Beard Sign/Lincoln's sign: This sign is present in bone scintigraphy. Bone scan may demonstrate marked uptake throughout the entire mandible.

It is recognized that bone-seeking radiopharmaceuticals adsorb onto bone at sites of new bone formation, with particular affinity for areas where active mineralization is occurring. This is called as Lincoln's sign or black beard. Seen in Paget's disease (Anupama A Sattigeri, 2013; Chvostek, 2000)

Bob bon Sign: Occurs in dyskinesia, under the buccolingual masticatory syndrome. Also called fly catcher's tongue shows rapid darting movements of the tongue.

Butterfly sign: Is characterized by erythema over the malar eminence, corresponding to the wings of a butterfly, and the nasal bridge, representing the body of the butterfly. This sign is classically described in lupus erythematosus, also seen in dermatomyositis but in SLE the nasolabial folds are spared.

Bull neck sign: Mild redness, oedema of pharynx, cervical lymphadenopathy causing enlargement of neck seen in diphtheria.

Button hole sign: Occurs in neurofibromatosis. Single/multiple soft skin colored nodules swellings which can be pressed into the skin with the fingertip.

Chvostek's sign: Seen in tetany. Tapping at the angle of the jaw stimulates the facial nerve and causes twitching of the muscles of face on the same side. It is also called as Weiss sign (Chvostek, 2000)

Cluster of jewels sign: Also termed string of pearls or rosettes sign, refers to an early stage of chronic bullous disease of childhood, when new lesions appear at the margin of older ones, resembling a cluster of jewels.⁵

Compy's sign: White patches due to degenerated squamous epithelium occurring on buccal Mucosae and gums is seen in Moniliasis, Pemphigus, Lichen planus and Measles.

Cracker sign: Difficulty in eating dry foods in xerostomia.

Crowe's Sign: Axillary Freckling seen in Von Recklinghausen's neurofibromatosis (Elephant Man Syndrome).

Dubios sign: Very short little finger as a symptom of congenital syphilis which can be used as adjunctive with other features such as saddle nose, premature births.

Flag sign: Alternating episodes of under nutrition and adequate nutrition may cause hair to have dramatic striped flag appearance. This is seen in kwashiorkor.

Forschheimer Sign: Small discrete dark red papules seen on soft palate. Occurs in rubella, scarlet fever.

Garrington Sign: Widening of the periodontal ligament space. Due to infiltration of the tumor in the space. Seen in osteosarcoma.⁶

Gorlin's Sign: Seen in Ehler's Danlos syndrome. Patient can touch its nose with the tip of the tongue. Can be seen in 10% of the normal population.

Gottron's Sign: Seen in dermatomyositis. Scaly erythematous eruptions seen in dorsa of hand, metacarpophalangeal joints and proximal interphalangeal joints.

Grattage sign: Seen in psoriasis. Same as Auspitz sign. The test is referred to as Grattage test.

Guiren's sign: seen in Lefort I fracture, presented as Ecchymosis near greater palatine foramen.

Hanging drop sign in radiograph: Indicates orbital floor fracture. It is due to herniation of orbital contents (fat, inferior oblique and inferior rectus muscles in to the antrum). Best demonstrated in waters projection.

Heliotrope sign: seen in patients with dermatomyositis as a violaceous erythema involving the periorbital skin. The term refers to the purplish color of the flowers of the heliotrope plant. Similar to Gottron's sign, the heliotrope sign is strongly suggestive of dermatomyositis.

Heugh – Gottron sign: Dystrophic and ragged cuticle seen in Lupus erythematosus.⁷

Higoumenakis's sign: Irregular thickening of the sternoclavicular portion of the clavicle. It seen in Congenital syphilis.

Hoagland's sign: Early and transient bilateral upper lid edema occurring in patients with infectious mononucleosis. The sign is usually present only for the first few days of the clinical presentation of the illness.⁸

Hutchinson's Sign: A skin lesion on the tip of the nose precedes the development of ophthalmic herpes zoster. This occurs because the nasociliary branch of the trigeminal nerve innervates both the cornea and the tip of the nose. This sign is named after Sir Jonathan Hutchinson. Hutchinson's sign is a powerful predictor of ocular inflammation and corneal denervation in herpes zoster ophthalmicus.

Hypopyon sign: Hypopyon sign describes the presence of small, discrete vesicles either flaccid or tense that become secondarily infected and pus accumulates in the lower half of the pustule. It is a clinical sign seen in pyoderms and secondarily infected vesiculobullous disorders where there is transverse fluid level comprising purulent material at the bottom when the patient is in standing position.^{9,10}

Jellinek sign: refers to eyelid pigmentation occasionally seen in hyperthyroidism. The hyperpigmentation is secondary to increased corticotrophin levels and may also occur on other areas of the face .

Jump sign: Patient jumps up while palpating muscles of mastication in MPDS due to pain.

Leser-Trelat Sign: Sudden appearance of seborrheic keratosis with pruritis associated with internal malignancy.

Lipstick sign: Lipstick sticks to the labial surface of maxillary anterior teeth. Occurs due to xerostomia.

Meffert's sign: Characterized by the presence of ectopically located sebaceous glands on the lip, oral mucosa and less commonly on gingiva seen in Fordyce's granules. Prominent lip involvement can result in lipstick like mark left on the rim of a glass.

Milian's ear sign: It distinguishes between erysipelas and cellulitis where there is ear involvement of ear in erysipelas.

Mobius Sign: Impairment of ocular convergence in Graves' disease. Due to insufficiency of the internal rectus muscles

Nikolsky's sign: seen in pemphigus, familial benign chronic pemphigus and recessive form of epidermolysis bullosa, Steven Johnson syndrome, porphyria, TEN, Staphylococci scaled syndrome

TYPES:

- Marginal: New vesicle occurs while manipulating the edges or margins of an existing vesicle or by pulling the remnant of a ruptured blister.
- Direct: Occurs by rubbing an area distant to the existing vesicle.
- Wet: The eroded lesion has a moist base.
- Dry: The eroded lesion has a dry base. This signifies healing.
- Pseudonikolskys: Occurs because of keratinocyte necrosis and not due to acantholysis. Seen in bullous drug eruptions like Steven Johnson Syndrome and Toxic Epidermal Necrolysis.

Ollendorf Sign: Secondary syphilis. Papular lesions of secondary syphilis are painful on touch of a blunt probe.

Oil drop sign: Circular areas of discoloration of nail bed and hyponychium resemble oil drop below the nail positive in psoriasis.

Osler's sign: Blue black pigmentation in the sclera near the insertion of rectus muscle in patients with alkaptonuria

Pastia's sign: Linear Petechial eruptions in the skin folds such as anti-cubital fossa seen in Scarlet Fever.

Patriot Sign: It is seen in Raynaud's phenomenon. a vasospastic response to cold that white, blue, red features in hands and fingers.

Pear drop sign: more fluctuant area of the vesicle appears like tear drop due to gravity which causes accumulation of fluid

Pemberton Sign: It is the development of facial flushing, distended neck and head superficial veins, inspiratory stridor and elevation of the jugular venous pressure (JVP) upon raising both of the patient's arms above his/her head simultaneously, as high as possible (Pemberton's maneuver).

Pup – tent sign: Nail splits and elevates longitudinally with downward angle of lateral nail edge seen in lichen planus.⁸⁻¹⁰

Racoon sign: Indicative of basilar skull fracture. The condition is seen as periorbital ecchymosis from subconjunctival hemorrhage, which occurs secondary to blood dissecting from the disrupted skull cortex to the soft tissue of the periorbital region.

Rind Sign: seen in Fibrous dysplasia. A Lucent lesion in the diaphysis or metaphysis with endosteal scalloping and with or without bone expansion and absence of periosteal reaction.

The lucent lesion has a thick sclerotic border and is called Rind's sign.

Romberg's Sign: Occurs in tabes dorsalis, neurosyphilis. Person is unable to stand erect unaided with his eyes closed. Intact and functioning dorsal column of the spinal cord is necessary for proprioception.¹¹

Rugger jersey sign: seen in Osteopetrosis and hyperparathyroidism. Vertebrae are extremely radio dense, and these radio opaque bands are separated by lucent spaces. Also called sandwich sign

Shawl sign: Confluent macular violaceous erythema on the posterior neck and shoulders is called Shawl sign seen in dermatomyositis.

Slapped cheek sign: Seen in fifth disease, or erythema infectiosum. Manifests as an erythematous rash on the cheek bearing a resemblance as if the child has been slapped.

Slip Sign: The edge of lipoma is soft, compressible and often slips away from the examining fingers.

Stafne's sign: Widening of Periodontal ligament space due to increase in collagen synthesis.

Stellwags Sign: Infrequent and incomplete blinking in Graves' disease

Straus Sign: In facial paralysis, if an injection of pilocarpine is followed by sweating on the affected side later than on the other, indicative of peripheral lesions.

Tail Sign: CT appearance of a plunging ranula which has pierced the mylohyoid muscle and entered the sublingual spaces. Can also be seen in an MRI.

Tin-tack sign: It is also known as carpet tack sign, is a useful clinical feature in diagnosing discoid lupus erythematosus. After removing the scales overlying the lesion, the lesion dips into the pilosebaceous canals.¹⁰

Tongue blade sign: Tongue blade sticks to the oral tissues due to xerostomia.

Tripe palms sign: Thickened velvety palms that have appearance of tripe seen in acanthosis nigricans.

Trossier's sign: Left supraclavicular nodes in abdominal metastasis (Virchow's nodes). Occurs on the left side because it is on the left side of the neck where the lymphatic drainage of most of the body (from the thoracic duct) enters the venous circulation via the left subclavian vein.

Trousseau's sign: Seen in tetany (hypoparathyroidism). Trousseau's sign is the appearance of carpal spasm after application of pressure on the arm by inflation of the sphygmomanometer cuff. This will occlude the brachial artery. In the absence of blood flow, the patient's hypocalcemia and subsequent neuromuscular irritability will induce spasm of the muscles of the hand and forearm.

Ugly duckling sign: Refers to the observation that a nevus that does not resemble a patient's other nevi is more likely to represent a melanoma.

V- sign: Confluent macular violaceous erythema on the anterior neck and chest in patients of dermatomyositis is called V sign.

Wattle's Sign: The turkey wattle sign describes enlargement of a facial mass on dependency of the head and when the sign is present it is pathognomonic of a vascular malformation or hemangioma.¹¹

Conclusion

Knowledge and elicitation of signs enhances the clinical acumen of oral diagnosticians and thus will enhance the care of patients with mucocutaneous manifestations.

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