



## Unit 38. Sarvasāra Mukharoga

### Unit 38 — Sarvasāra Mukharoga

*Stomatitis • Oral Submucous Fibrosis • Oral Candidiasis • Tumours of Oral Cavity*

### Learning objectives

By the end of this chapter you should be able to: (1) define the scope of **Sarvasāra Mukharoga** and map major clinical entities to Ayurvedic doṣa-dūṣya logic; (2) write the **Nidāna Pañcaka** common to disorders of the entire mouth; (3) describe diagnosis and management of **Stomatitis**, **Oral Submucous Fibrosis (OSMF)**, **Oral Candidiasis**, and **Oral Tumours** with exam-ready differentials; (4) prescribe **Pathya-Apathya** and **Sāmānya Cikitsā**; (5) state **Sādhysādhyatā** with red-flag criteria for urgent referral.

### 1) Sarvasāra Mukharoga — scope & nosology

“**Sarvasāra**” indicates **generalised, whole-mouth** afflictions, not restricted to a single sub-site (oṣṭha, danta, dantamūla, jihvā, tālu). In classical Śālākya texts, site-wise chapters exist; the **whole-mouth** perspective is invoked when **diffuse mucosal inflammation, widespread kleda/śoṣa, or proliferative lesions** involve multiple regions. Clinically, you will meet four prototypical patterns:

- **Stomatitis (Mukhapāka-mucosal inflammation/ulceration)**
- **Oral Submucous Fibrosis (OSMF) — chronic fibrosing disorder with trismus**
- **Oral Candidiasis — fungal overgrowth states**
- **Oral Tumours** — premalignant and malignant lesions of the oral cavity

Ayurvedic mapping (high-yield):

- **Pitta-Rakta duṣṭi** → erosions/ulcers, burning, erythema (stomatitis, mucositis).
- **Kapha-Kleda-Āma** → coatings, curdy plaques, halitosis (candidiasis, plaque-rich states).
- **Vāta-Kapha saṅga (Māṃsa/Medo dhātu)** → fibrosis, stiffness, reduced mouth opening (OSMF).
- **Arbuda/Asṛgdustī** traditions → proliferative, indurated, non-healing lesions (tumours).

### 2) Nidāna Pañcaka (common to Sarvasāra Mukharoga)

#### A) Nidāna (etiological factors)

**Āhāra (diet):**

- Abhiṣyandī foods (excess sweet, sticky, deep-fried), very hot/spicy/sour; refined sugar snacking; micronutrient deficiency (iron, folate, **B12**, **vitamin C**) predisposing to cheilitis, glossitis, bleeding gums.

**Vihāra (habits/environment):**

- **Tobacco** (smoked/smokeless) and **areca nut/betel quid** (strong risk for OSMF, dysplasia), alcohol, poor oral hygiene, mouth breathing, lip-licking, unprotected sun exposure (actinic cheilitis), stress/sleep loss.

**Vyādhi/Drugs:**

- Diabetes mellitus (periodontal disease, candidiasis), anemia, immunosuppression (HIV, chemotherapy/radiation →

mucositis), xerogenic drugs (anticholinergics, antidepressants), steroids/antibiotics altering flora.

#### Āgantuka:

- Mechanical trauma (sharp teeth, dentures), thermal/chemical burns, ill-fitting appliances.
- Infective triggers: **HSV-1, Candida albicans**, bacterial biofilm.

#### B) Pūrvārūpa (prodromal features; common pool)

- Oral burning/tingling, altered taste (dysgeusia), mild soreness, stickiness or dryness, halitosis, intolerance to spicy foods, early mucosal erythema or whitish coat.

#### C) Rūpa (cardinal signs)

- **Diffuse erythema/erosions/ulcers** (stomatitis),
- **Curdy white plaques that wipe** (candidiasis),
- **Mucosal blanching, fibrous bands, trismus** (OSMF),
- **Non-healing indurated ulcer or exophytic mass ± neck node** (tumour).

#### D) Upaśaya-Anupaśaya

- Relief with **kavala/gandūṣa** (warm saline/triphala), bland soft diet, demulcents (ghṛta-based), micronutrient correction; aggravation with tobacco/areca, alcohol, very hot/spicy foods, dehydration, stress.

#### E) Samprāpti (integrated pathogenesis)

- **Doṣa-prakopa + oral dysbiosis** → epithelial barrier injury (Pitta-Rakta) or **kleda** accumulation (Kapha-Āma) → inflammatory cascades and pain/ulceration.
- **Chronic areca exposure** → fibroblast stimulation, collagen cross-linking (copper/arecoline mediated), reduced matrix degradation → **submucosal fibrosis** (Vāta-Kapha saṅga in Māṃsa-Medo).
- **Immune suppression/xerostomia** → **Candida** overgrowth (Kapha-kleda), biofilm dominance.
- **Genotoxic carcinogens** (nitrosamines, tobacco) on a background of chronic inflammation → epithelial dysplasia → carcinoma (Arbuda-sañjñā).

### 3) Condition-wise core

#### A) Stomatitis (Mukhapāka / Mucositis)

**Definition & types:** Diffuse, painful inflammation/ulceration of oral mucosa. Patterns you should name: **aphthous-like, herpetic, drug/chemo-induced mucositis, traumatic, nutritional deficiency-related**.

**Ayurvedic lens:** Predominant **Pitta-Rakta duṣṭi** with Vāta pain and, in chronic cases, Kapha slime.

**Clinical features:** Burning pain, erythema, shallow ulcers with yellow slough and erythematous halo; odynophagia; poor oral intake. In mucositis—graded (I-IV) by erythema → ulceration → feeding compromise.

**Differentials:** Aphthous ulcers, herpetic stomatitis, pemphigus, lichen planus, candidiasis, neutropenia-related ulcers.

#### Management (integrative & exam-ready):

- **Nidāna-parivarjana:** remove sharp edges, correct hygiene; stop irritants; treat anemia/deficiencies.
- **Local śodhana/śamana:**
  - **Kavala/Gandūṣa** with **triphala/khadira/yaṣṭi** decoctions (twice-thrice daily).
  - **Pratiśāraṇa (topical): yaṣṭimadhu-ghṛta** or **madhu-ghṛta** thin film; **śatadhauta-ghṛta** for burning.
  - **Targeted:** short course **tankan-madhu** paste only on non-candidal sloughy ulcers (avoid in candidiasis).
- **Systemic: Deepana-pācana** if āma; **Gudūcī, Nimba, Sārivā** for Pitta-Rakta; **antioxidant-B-complex-iron** if

deficient.

- **Modern add-ons:** topical anesthetic gel before meals; steroid paste for immune aphthae after ruling out fungal infection; **PPI/HP eradication** when indicated; oral cryotherapy around chemotherapy (institutional protocol).
- **Red flags:** neutropenic fever, extensive haemorrhagic ulcers, dehydration—**admit**.

**Prognosis:** **Sādhya** in simple aphthae/trauma; **yāpya/kṛcchra** in chemo-mucositis and immune conditions.

**Images for reference (courtesy - <https://www.msmanuals.com/>):**

### Herpes Stomatitis



### Secondary Herpes Simplex



**Pemphigus Vulgaris (Oral Mucosa)**



**Candidal Stomatitis**



**Primary Syphilis: Chancre on the Mouth**



**Oral Hairy Leukoplakia**



## B) Oral Submucous Fibrosis (OSMF)

**Definition:** Chronic, progressive, **fibrosing** disorder of oral mucosa with **trismus** and burning; strong association with **areca nut**.

**Ayurvedic mapping:** **Vāta-Kapha** sāṅga in **Māṃsa/Medo dhātu** with **Pitta-Rakta** irritation initially (“dāha”).

**Key features:** Mucosal blanching, fibrous bands (buccal mucosa, soft palate), restricted mouth opening, burning on spices, tongue depapillation; nasal twang speech in advanced cases.

**Staging (bedside):** Inter-incisal mouth opening: **>35 mm normal, 20-35 mm mild, <20 mm severe.**

**Complications:** Nutritional compromise, dental hygiene difficulty, **malignant transformation risk** (remember this in theory answers).

### Management (two-pronged):

- **A. Habit cessation & counselling:** strict **areca/tobacco/alcohol cessation**; nutritional rehabilitation (iron, folate, B-complex, **high-protein diet**).
- **B. Therapy by stage:**
  - **Early-Moderate:**
    - **Snehana-Svedana** to face & jaws; **mṛdu upanāha** (castor oil-based).
    - **Pratiśāraṇa** with **ghṛta-yaṣṭi**, **maṇḍūkapaṇī-siddha taila** to improve pliability.
    - **Active mouth-opening physiotherapy:** stacked ice-cream sticks or jaw stretcher (3-4



sessions/day, 10–15 min, pain-limited).

- **Systemic:** anti-oxidants; consider **Triphala-Guggulu/Āyur-rasāyana** as supportive.
- **Severe/frozen bands:**
  - **Śalya-tantra** referral: fibrotic band release, grafts/flaps; postoperative **splints** and **intensive physiotherapy**.
- **Modern adjuncts (evidence-based in clinics):** intralesional hyaluronidase/corticosteroids in selected cases; physiotherapy devices; treat reflux if present.

**Prognosis: Yāpya;** relapse if habits continue; long-term surveillance for dysplasia/cancer is mandatory.

### C) Oral Candidiasis

**Definition:** Overgrowth of **Candida albicans** on oral mucosa; common in infants, elders, denture-wearers, xerostomia, diabetics, steroid/antibiotic users.

**Ayurvedic mapping: Kapha-Kleda** dominance with **Āma**; often rides on weakened **vyādhi-kṣamatva**.

**Clinical forms (write at least three):**

- **Pseudomembranous (“thrush”)** — white, curdy plaques that **wipe**, leaving erythema.
- **Erythematous** — red, sore mucosa (denture stomatitis on palate).
- **Angular cheilitis** — fissuring at commissures; may be mixed Candida-staph.
- **Median rhomboid glossitis** — depapillated mid-dorsal tongue patch.

**Diagnosis:** Clinical; confirm by **KOH** mount/culture if needed; check blood sugar in recurrent disease.

**Management:**

- **Local:** meticulous denture hygiene (night removal; cleansing), **kavala** with **triphala/khadira**; dry the commissures (angular cheilitis) before applying barrier.
  - **Systemic correction:** glycaemic control; review **inhaled steroid technique**; cut sugar snacking; treat xerostomia.
  - **Antifungals:** topical nystatin/clotrimazole; short systemic azole when refractory or immunocompromised.
  - **Ayurvedic śamana: Tikta-kaṣāya** dravya gargles; **yaṣṭi-ghṛta** thin film on sore areas for comfort.
- Prognosis: Sādhya** with risk-factor control; **kṛcchra** in immunosuppressed states.

### Oral Candidiasis (Labial Mucosa)



**Oral Candidiasis Due to HIV Infection**



**Candidiasis (Oral)**



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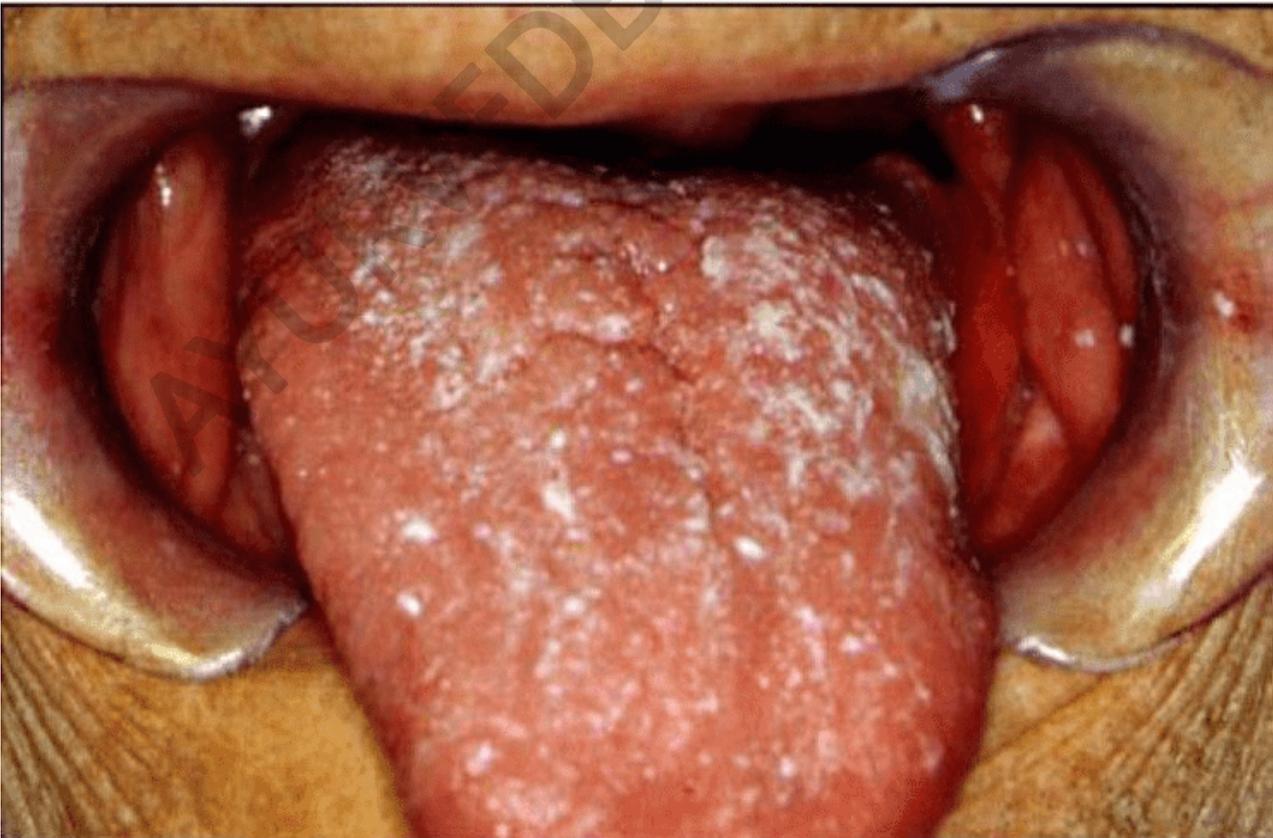
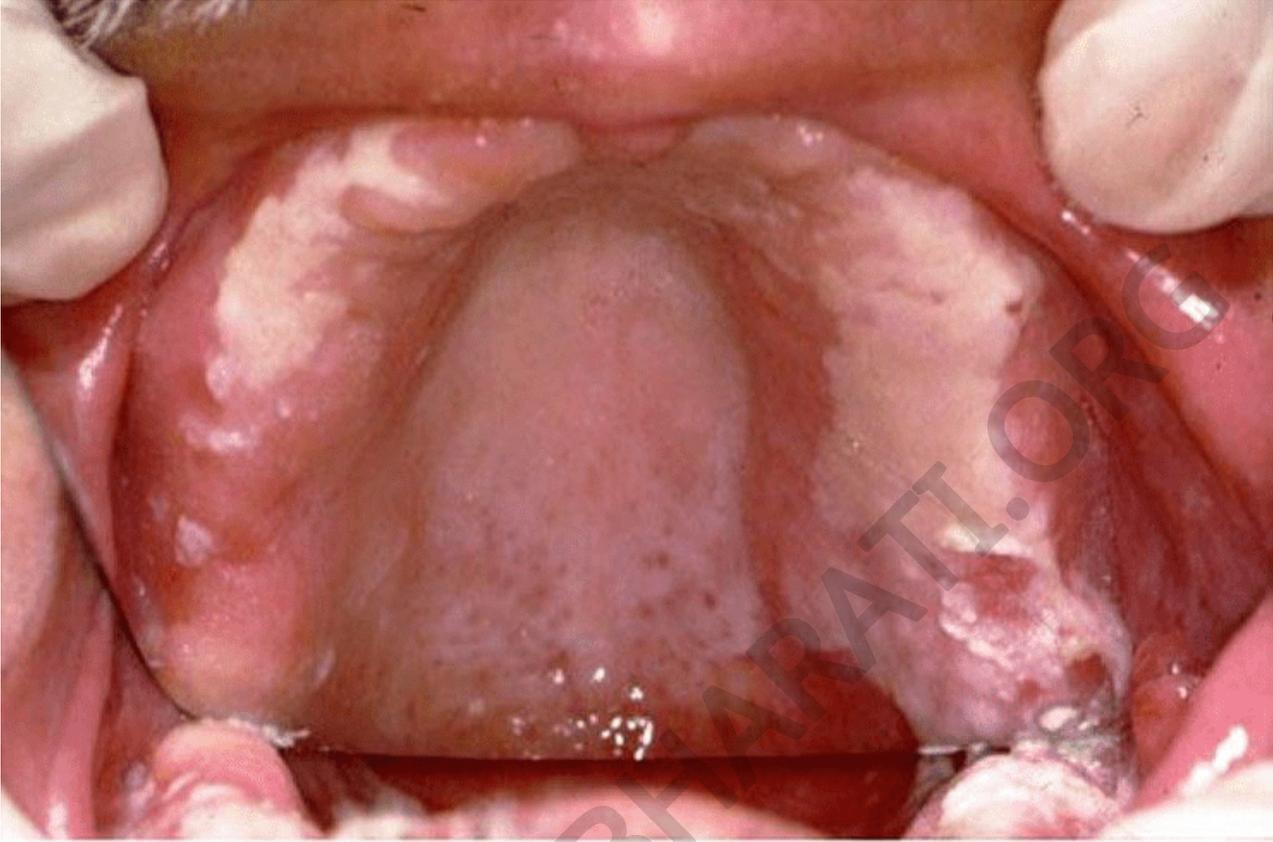
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Oral candidiasis takes many forms, including angular cheilitis and pseudomembranous plaques on the oral mucosae, which can be associated with dentures, as in this image (top), or develop on the tongue (bottom) or pharynx.

## D) Tumours of Oral Cavity (premalignant & malignant)

**Premalignant spectrum: Leukoplakia, Erythroplakia, Proliferative verrucous leukoplakia, OSMF** (potentially malignant disorder).

**Malignant: Oral squamous cell carcinoma (OSCC)** (lateral tongue, floor of mouth, buccal mucosa in betel quid users), minor salivary tumours.

**Risk factors (write five):** tobacco (any form), **areca nut**, alcohol synergy, poor oral hygiene and chronic irritation, HPV (oropharyngeal relevance), nutritional deficiency, immunosuppression.

### Red-flag signs (must memorise):

- **Non-healing ulcer >2 weeks, indurated** margins
- **Exophytic/cauliflower** growth, contact bleeding
- **Persistent pain/paresthesia**, otalgia with normal ear
- **Neck lymphadenopathy**
- **Progressive trismus / OSMF with suspicious area**

**Ayurvedic lens: Arbuda**—granthi-saṅghāta with **doṣa-dhātu** derangement (Rakta-Māṃsa). Management is primarily **Śastra-karma** (oncosurgery) with **rasa-raktaprasādana** and **rasāyana** as supportive after tumour control.

### Management (integrative):

- **Immediate referral** for biopsy and staging (TNM).
- **Definitive therapy:** surgery ± radiotherapy/chemotherapy as per stage and site.
- **Supportive (Ayurveda):**
  - **Pre/Peri-therapeutic oral care protocol** to reduce mucositis (gentle kavala, bland emollients, nutrition).
  - **Rasāyana support** post-therapy (under supervision): **Gudūcī, Āmalakī, Yaṣṭi**; pain palliation with safe local measures.
- **Prognosis:** Stage-dependent; emphasise **early detection**.

### Benign Oral Growth (Irritation Fibroma)



This photo shows an oral growth caused by chronic irritation. In this case, a fibroma on the inside of the cheek formed due to rubbing from orthodontic braces.

DR P. MARAZZI/SCIENCE PHOTO LIBRARY

### **Squamous Papilloma - Ordinary Wart**



This example of an oral squamous papilloma is an ordinary wart (verruca vulgaris), appearing as a raised, rounded, flesh-colored lesion on the surface of the tongue.

DR P. MARAZZI/SCIENCE PHOTO LIBRARY

### **Squamous Papilloma of the Tongue**



This photo shows a wart appearing as a pedunculated papilloma (exophytic growth, cauliflower-like) on the underside of the tongue. HPV can be a cause.

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### **Thrush**



Creamy white patches are seen inside the mouth and may bleed when scraped off. This finding is typical of thrush, which is caused by infection with *Candida*.

Image provided by Thomas Habif, MD.

### **Ranula**



This photo shows a close-up of a ranula (center) in a person's mouth. Ranulas are mucoceles that occur in the floor of the mouth (generally larger than mucoceles that occur elsewhere in the oral cavity). The source of mucin content in ranulas is usually the sublingual gland (also occasionally from the submandibular gland duct).

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### **Torus Palatinus**



Torus palatinus is a common bony hard mass that occurs along the midline of the hard palate (often bilaterally, as is visible here).

DR P. MARAZZI/SCIENCE PHOTO LIBRARY

### **Torus Mandibularis**



A benign growth of the lingual aspect of the mandible is visible here on the left side of the patient's mouth.

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### **Mucus Retention Cyst (Mucocele, Mucus Extravasation Phenomenon)**



This photo shows a labial mucocele, a benign mass consisting of a swollen sac filled with mucus. Mucoceles are often fluctuant, although some can feel firmer to palpation.

DR. P. MARAZZI/SCIENCE PHOTO LIBRARY

#### **Palatal Salivary Gland Pleomorphic Adenoma**



Pleomorphic adenoma is the most common intraoral benign neoplasm. The palatal mucosa is the most common site of occurrence.

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#### **Leukoplakia**



This photo shows a thick plaque of leukoplakia extending widely over the dorsum of the tongue.

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#### **Leukoplakia and Squamous Cell Carcinoma**



Leukoplakia is a general term that can describe white hyperkeratotic plaques that develop in the mouth. The majority prove to be benign. However, in this image, squamous cell carcinoma is present in one of the leukoplakic lesions on the ventral surface of the tongue (arrow).

Image provided by Jonathan A. Ship, DMD.

#### **Erythroplakia and Squamous Cell Carcinoma**



Erythroplakia is a general term that can describe red, flat, or eroded velvety lesions that develop in the mouth. In this image, an exophytic squamous cell carcinoma on the tongue is surrounded by a margin of erythroplakia.

Image provided by Jonathan A. Ship, DMD.

#### 4) Sāmānya Cikitsā (cluster-level)

**Pillars you can write in any whole-mouth answer:**

1. **Nidāna-parivarjana:** halt tobacco/areca/alcohol; correct hygiene; treat dental foci; stop irritant mouthwashes; ensure hydration and micronutrients.
2. **Local kriyā:**
  - **Kavala/Gandūṣa:** warm **triphala/khadira/yaṣṭi** for inflammatory states; **ghṛta-gandūṣa** for dryness/burning.
  - **Pratiśāraṇa:** **yaṣṭimadhu-ghṛta** or **śatadhauta-ghṛta** thin coat; avoid caustics on candidal lesions.
3. **Doṣānusāra śamana:** **Tikta-kaṣāya** (Pitta/Kapha), **snehana** (Vāta), **deepāna-pācana** if āma.
4. **Systemic optimisation:** diabetes control; anaemia/deficiency correction; stress-sleep hygiene.
5. **When to escalate:** trismus progression (OSMF), candidiasis not settling in 10–14 days, any **suspicious ulcer/patch** → biopsy referral.

#### 5) Pathya-Apathya (common)

**Pathya (Do's):** soft, warm, non-irritant meals; **uṣṇa-jala** sips; high-protein diet with greens, fruits; B-complex/iron/folate when deficient; gentle brushing and interdental cleaning; denture hygiene; sun protection for lips; regular sleep; stress control.

**Apathya (Don'ts):** tobacco/areca/alcohol; very hot/spicy/sour foods during active lesions; frequent sugar snacks; self-medicating with strong steroid/caustic pastes; day sleep (kapha-varadhana) in candidiasis; mouth breathing.

#### 6) Sādhyāsādhyatā (prognosis—one-glance table)

Entity	Sādhyā	Yāpya/Kṛcchra-sādhyā	Asādhyā/High risk
Stomatitis	Aphthae, trauma-related	Chemo-mucositis, immune aphthae	—

Entity	Sādhya	Yāpya/Kṛcchra-sādhya	Asādhya/High risk
OSMF	—	<b>Most cases (habit-linked, relapse prone)</b>	Severe trismus with dysplasia/malignancy
Candidiasis	With risk-factor control	Immunosuppression/Xerostomia	Dissemination (rare)
Tumours	—	—	OSCC/advanced disease (stage-dependent)

## 7) Quick viva & OSCE boxes

**OSCE: Mouth-opening measure:** inter-incisal distance in mm; record baseline/follow-up in OSMF.

**Mucositis grading:** WHO 0-IV (0 none; I erythema; II ulcers but can eat; III ulcers needing liquid diet; IV alimention impossible).

**Candida bedside test:** KOH wet mount from plaque.

**Lesion description template:** Site-Size-Shape-Surface-Margins-Base-Edge-Tenderness-Bleed-Nodes.

## Assessment

### A. Long Essays (10 marks each)

- Sarvasāra Mukharoga**—write the **Nidāna Pañcaka**, Pathya-Apathya and Sāmānya Cikitsā. Illustrate with stomatitis and candidiasis.
- Oral Submucous Fibrosis**—aetiology, pathogenesis, clinical features, staging, management and prognosis. Add Ayurvedic mapping.
- Tumours of oral cavity**—pre-malignant disorders, risk factors, red-flags, diagnostic approach and principles of management. Correlate with **Arbuda-sañjñā**.

### B. Short Essays (5 marks each)

- Integrated management of **mucositis** in a chemotherapy patient.
- Candidiasis**—types, risk factors, and step-wise treatment.
- Pathophysiology of **OSMF** and role of physiotherapy.
- Pathya-Apathya** common to Sarvasāra Mukharoga (any six with reasoning).
- Write an OSCE-style note on measuring and improving **mouth opening**.

### C. Short Answers (2 marks each)

- Two **prodromal** features common to Sarvasāra Mukharoga.
- Name two **micronutrient deficiencies** relevant to stomatitis.
- List two **risk factors** specific to OSMF.
- State two clinical forms of **oral candidiasis**.
- Write **two red-flag** signs of oral malignancy.
- One **Ayurvedic** measure for burning mouth.

### D. MCQs (1 mark each; choose one)

- The strongest single risk factor for **OSMF** is:  
A. Alcohol B. **Areca nut** C. Refined sugar D. Betel leaf alone
- “Curdy plaques that wipe leaving erythema” suggests:  
A. Leukoplakia B. **Candidiasis** C. Lichen planus D. Lupus
- Mouth opening **<20 mm** in OSMF indicates:  
A. Mild B. **Severe** C. Normal D. Indeterminate
- Non-healing indurated ulcer >2 weeks with contact bleeding: first step is:  
A. Topical steroid B. **Incisional biopsy & staging** C. Vitamin C D. Mouthwash only



5. In stomatitis with burning and erythema (Pitta-pradhāna), the **best local** is:  
A. Lime application B. **Satadhauta-ghṛta coat** C. Spirit swab D. Dry heat

**Answer key:** 1-B, 2-B, 3-B, 4-B, 5-B.

## References

### Classical

- **Suśruta Saṃhitā**, *Uttara-tantra* — Mukha-gata roga adhyāyas (site-wise descriptions; principles of śodhana/śamana and śalya where indicated).
- **Aṣṭāṅga Hrdaya**, *Uttara-sthāna* — Mukharoga-vijñāniya & -pratiśedha (oṣṭha/jihvā/tālu and general mouth disorders); *Sūtra-sthāna* (Gaṇḍūṣa/Kavala regimens).
- **Aṣṭāṅga Saṃgraha**, *Uttara-sthāna* — parallel mukharoga sections and kriyākālpa details.

### Modern

- **Shafer's Textbook of Oral Pathology**, latest ed.
- **Burket's Oral Medicine**, latest ed.
- **Neville et al., Oral & Maxillofacial Pathology**, latest ed.
- **Dhingra & Dhingra, Diseases of Ear, Nose & Throat & Head-Neck Surgery** (oropharynx & oral cavity chapters).
- WHO/ICD-O summaries for oral potentially malignant disorders (for classification orientation).

### 3-minute end-review

- In one line each, state the **dominant doṣa-dūṣya** for (i) stomatitis, (ii) OSMF, (iii) candidiasis, (iv) tumours.
- List **five red flags** in the mouth that mandate **biopsy**.
- How will you **improve mouth opening** in OSMF over 4 weeks? Outline your daily plan in three bullets.

End of Unit 38 — Sarvasāra Mukharoga.