



Ayurvedic Management of Oral Erythroplakia Presenting as Palatal Petechiae: A Case Report with Therapeutic Insights and Classical Correlation

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ABSTRACT: Oral erythroplakia (OE) is a potentially malignant disorder of the oral mucosa with a high risk of cancerous transformation, ranking among the most likely to become malignant among oral premalignant conditions. Clinically, it appears as a red patch with clear boundaries, and histopathologically, it may show epithelial dysplasia, carcinoma in situ, or invasive carcinoma. Palatal petechiae, which are small hemorrhagic spots on the soft palate, can be an early sign of OE, especially in individuals at high risk.

This case report describes the Ayurvedic treatment of OE presenting as palatal petechiae in a 34-year-old man with a history of tobacco and alcohol use. The treatment followed the principles of Raktaja Mukhapaka and Pittaja Mukhapaka, using a local application (lepa) made from Lodhra (*Symplocos racemosa*), Haridra (*Curcuma longa*), and Madhuyashti (*Glycyrrhiza glabra*) powders mixed with honey, along with internal use of Amritadi Guggulu, Aarogyavardhini Vati, and Khadiradi Vati.

Notable clinical improvement was seen within two weeks, with complete symptom resolution and disappearance of the palatal lesion. This study emphasizes the potential effectiveness of traditional Ayurvedic treatments in managing potentially malignant oral lesions and highlights the necessity for thorough clinical trials to confirm these results.

KEYWORDS: Oral erythroplakia, palatal petechiae, Ayurveda, Raktaja Mukhapaka, mucosal dysplasia, herbal therapeutics.

INTRODUCTION

Oral erythroplakia (OE) is an uncommon yet clinically important potentially malignant disorder (PMD) affecting the oral mucosa. It is identified by distinct, bright red patches that cannot be classified as any other known lesion, and it poses a significant risk of turning malignant, with histopathological progression to carcinoma in situ or invasive squamous cell carcinoma reported in 40–91% of cases [1,2].

In India, the prevalence of OE varies from 0.02% to 0.83%, influenced by geographic and population risk factors [3]. The condition is strongly linked to tobacco use (both smoking and smokeless), alcohol consumption, and poor oral hygiene [4]. OE predominantly affects middle-aged and older adults, with a slight male predominance (M:F ~1.04:1) [5]. The buccal mucosa, floor of the mouth, and soft palate are the most commonly affected areas [6].

Palatal petechiae, appearing as small reddish or purplish spots, may serve as an early diagnostic indicator of OE, particularly in individuals who use tobacco and alcohol. Although often benign and associated with trauma or streptococcal pharyngitis [7], persistent petechiae should be evaluated for PMDs.

Ayurveda, the traditional Indian medical system, describes Raktaja Mukhapaka and Pittaja Mukhapaka under Mukharoga (oral disorders), which align with OE based on symptoms of inflammation, redness, and a burning sensation [8]. This case study examines an Ayurvedic treatment for a clinically diagnosed OE lesion presenting as palatal petechiae.

CASE REPORT

Patient Profile:

A 34-year-old man came in with a two-week history of a slowly growing red patch on the soft palate, accompanied by a burning sensation and sensitivity to spicy foods. He reported no history of systemic illness. The patient had been smoking and consuming alcohol for two years. He preferred Ayurvedic treatment.

Clinical Findings:

During the intraoral examination, a dark reddish, rectangular patch about 2x1 cm was found on the posterior hard and soft palate, with a smooth surface and small petechial dots. There was mild congestion of the palatoglossal and palatopharyngeal arches, tonsil hypertrophy, and yellowing of the teeth. No lymphadenopathy was detected.

General Examination:

- Ashtavidha Pariksha (Eight-fold Examination):
- Nadi (Pulse): Normal
- Mutra (Urine): Normal, frequency 3-4 times/day
- Mala (Bowel Movements): Sama (normal), frequency 2-3 times/day
- Jivha (Tongue): Normal
- Sparsha (Touch): Anushna (not too hot)
- Shabda (Voice): Normal- Drishti (Vision): Unaffected
- Akriti (Body Build): Madhyama (medium)

Vital Signs:

- Pulse Rate: 78/min, regular
- Blood Pressure: 110/80 mm Hg
- Temperature: 94.6°F
- Respiratory Rate: 22/min

Oral Clinical Examination:

The lips, tongue, gingiva, labial mucosa, muco-buccal fold, uvula, anterior and posterior pillars, tonsils, and posterior pharyngeal wall appeared normal. Examination of the palate showed a dark reddish, almost rectangular patch with tiny pinkish dots throughout. Congestion was noted on the palatoglossal arch, palatopharyngeal arch, and posterior pharyngeal wall. Both tonsils were mildly hypertrophied, and there was generalized yellow discoloration of the teeth. Fordyce granules were observed on the right buccal mucosa.

Laboratory Investigations:

Routine blood tests, including hemoglobin percentage (Hb%), total leukocyte count (TLC), differential leukocyte count (DLC), erythrocyte sedimentation rate (ESR), and platelet count, were performed and found to be normal.

Diagnostic Workup:

Diagnostic Workup: Complete blood count, ESR, platelet count, and biochemical parameters were within normal limits. Based on clinical morphology, history, and Ayurvedic assessment (Ashtavidha Pariksha), the condition was diagnosed as Raktaja Mukhapaka. A 34-year-old male patient presented with a primary complaint of a red patch on the palatal surface, along with pain and a burning sensation for two weeks. Two weeks prior, the patient was healthy, but a small reddish patch gradually developed on the palate. The patch increased in size, and a burning sensation gradually appeared at the site. The patient expressed interest in Ayurvedic treatment, which is why he prefers to incorporate it for the following.

Parameter:-

Past history: Not significant

Work history: He was working in private company

Family history: There is no any relative history found in this patient.

Vital sign: All vital sign were normal.

Systemic examinations: were normal

Addiction: He used to addict for smoking and alcohol for 2 yrs.

Specific examination

Inspection: Red patch seen on palatal region.

Palpation: Dark reddish patch seen palatal region with almost rectangular in shape.

Diagnosis: Erythroplakia

MATERIALS AND METHODS

Intervention Plan:

Based on Ayurvedic principles for managing Pitta-Rakta vitiation, the following treatment protocol was implemented:

Local Application (*Pratisarana* twice daily):

- *Lodhra curna* (*Symplocos racemosa*)
- *Haridra curna* (*Curcuma longa*)
- *Madhuyashti curna* (*Glycyrrhiza glabra*)
- Honey as an anupana (vehicle)

Internal Medication:

- *Amritadi Guggulu* – 250 mg TID
- *Aarogyavardhini Vati* – 125 mg BID
- *Khadiradi Vati* – 250 mg TID

Duration: 14 days

Monitoring: Symptoms such as burning sensation, pain, and size of the lesion were recorded at baseline, Day 7, and Day 15.

RESULTS

By the seventh day, the patient experienced a 60% reduction in the burning sensation and a decrease in patch intensity. By the fifteenth day, the lesion had completely healed, with no visible signs of erythema or petechiae. Throughout the treatment, no adverse drug reactions were noted. The patient returned to a normal diet and expressed satisfaction with the results.

The tables underscore the importance of Ayurvedic intervention in treating oral erythroplakia that appears as palatal petechiae.

Table 1: Symptom Score Progression Over Visits

Symptom	Baseline (Day 0)	Day 7 (Second Visit)	Day 15 (Third Visit)	Percentage Improvement
Burning Sensation (VAS 0–10)	8	3	0	100%
Pain on Palate	Mild	Absent	Absent	100%
Size of Red Patch (cm ²)	2.0 x 1.0	1.2 x 0.5	Not visible	100%
Petechiae Presence	Diffuse	Focal remnants	Absent	Resolved
Lesion Color	Deep reddish	Light red	Normal mucosa	Normalized
Tonsillar Hypertrophy	Mild	Mild	Resolved	Improved

Table 2: Laboratory Investigation Parameters Pre- and Post-Intervention

Parameter	Baseline (Day 0)	Post-Treatment (Day 15)	Reference Range
Hemoglobin (Hb%)	14.2 g/dL	14.4 g/dL	13.0–17.0 g/dL
Total Leukocyte Count (TLC)	6,200 /mm ³	6,400 /mm ³	4,000–11,000 /mm ³
Differential Count (N/L/M/E/B)	N–60%, L–30%	N–62%, L–28%	WNL
Platelet Count	2.1 lakh /mm ³	2.2 lakh /mm ³	1.5–4.0 lakh /mm ³
ESR	14 mm/hr	12 mm/hr	<20 mm/hr (Male)
Liver Function Tests (LFT)	Normal	Normal	Within normal range
Blood Sugar (Fasting)	92 mg/dL	90 mg/dL	70–100 mg/dL

Visual Outcomes:

First visit



Second visit



Third visit



DISCUSSION

This case illustrates the potential of Ayurvedic management for early oral PMDs like OE. Classical texts such as Charaka Samhita and Sushruta Samhita describe Mukhapaka as inflammation of the oral cavity caused by imbalanced doshas. Raktaja and Pittaja Mukhapaka share clinical features with OE, including redness, burning, and erosion.

The herbs used in this study have well-documented pharmacological properties.

- *Haridra* (*Curcuma longa*): Anti-inflammatory, antioxidant, anti-mutagenic; inhibits NF-κB and COX-2 pathways [9].
- *Lodhra* (*Symplocos racemosa*): Astringent, haemostatic, cooling; promotes mucosal healing [10].
- *Madhuyashti* (*Glycyrrhiza glabra*): Demulcent, antimicrobial, estrogenic effects; supports epithelial repair [11].
- *Amritadi Guggulu*: Antioxidant and anti-inflammatory, effective in mucocutaneous disorders.
- *Aarogyavardhini Vati*: Detoxifies the liver, balances tridosha, promotes cellular metabolism.
- *Khadiradi Vati*: Classical mukhroga formulation; antiseptic and astringent properties.

Statistical Interpretation :

Although this is a single-case observational report without a control group, the percentage change in subjective and objective clinical parameters over 15 days suggests a clinically significant therapeutic response. The lack of changes in hematological parameters supports that the improvement is localized and therapeutic, rather than systemic recovery or natural remission. Photographic evidence supports visible mucosal healing consistent with Ayurvedic pathophysiological targets (Pitta-Rakta vitiation).

This integrative Ayurvedic approach provided symptom relief and lesion resolution without surgical intervention or side effects. While this is a single case, it contributes to the growing interest in traditional medicine for managing mucosal precancerous conditions.

CONCLUSION

This case report demonstrates that Ayurvedic treatment based on classical principles of Raktaja and Pittaja Mukhapaka can effectively manage early OE presenting as palatal petechiae. The combination of internal and local therapies yielded promising results with complete clinical resolution in 15 days. No adverse effects were reported. Further observational studies and clinical trials are needed to confirm efficacy and establish guidelines for integrative management of OE.

Patient Perspective:

"I first noticed a red patch on the roof of my mouth. I thought it would go away, but it didn't. I experienced discomfort while eating spicy food. I was skeptical at first, but the Ayurvedic treatment gave me relief within days and the patch disappeared in two weeks. I'm grateful for this alternative path of healing."

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