DERMATOLOGICAL ANALYSIS REPORT

Patient ID: SKN-2025-0308
Date of Analysis: March 9, 2025
Referring Physician: Dr. Sarah Johnson
Analyzing Dermatologist: Dr. Michael Chen

PATIENT INFORMATION

Name: Jane Smith
Age: 34
Gender: Female
Skin Type: III (Fitzpatrick Scale)

CLINICAL PRESENTATION

Primary Concern: Recurring rash on cheeks and forehead with occasional pustules
Duration: Approximately 8 months, with periods of improvement and exacerbation
Associated Symptoms: Mild itching, burning sensation after application of skincare products

Previous Treatments:

- Over-the-counter hydrocortisone cream (temporary relief)
- Tea tree oil-based cleanser (no improvement)
- Elimination of dairy from diet (minimal improvement)

ANALYSIS FINDINGS

Visual Examination

Affected Areas:

- Bilateral malar regions (cheeks)
- Central forehead
- Nasolabial folds

Lesion Characteristics:

- Erythematous papules and pustules
- Mild telangiectasia on the cheeks
- No comedones present
- No significant scaling

Dermoscopy Findings:

- Dilated blood vessels visible
- Absence of demodex mites

- No significant pigmentation changes

Digital Imaging Analysis

AI-assisted analysis of high-resolution images indicates pattern consistent with:

Condition	Confidence Score
Rosacea (Subtype 2)	93.7%
Acne Vulgaris	28.4%
Contact Dermatitis	18.2%
Seborrheic Dermatitis	12.9%

Vascular Pattern Analysis: Predominant superficial telangiectasia concentrated in malar region

Inflammatory Profile: Moderate inflammation with papular/pustular morphology

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DIAGNOSIS

Primary Diagnosis: Papulopustular Rosacea (Subtype 2)

Supporting Factors:

- Distribution pattern typical of rosacea
- Presence of telangiectasia
- Absence of comedones (differentiating from acne)
- Trigger correlation with spicy foods and hot beverages (from patient history)
- Negative for fungal elements (differentiating from seborrheic dermatitis)
- Flushing episodes reported by patient

TREATMENT RECOMMENDATIONS

Topical Therapy

1. **Azelaic Acid** (15% formulation) - Apply thin layer to affected areas twice daily
2. **Metronidazole** (1% gel) - Apply evenings to affected areas
3. **Gentle, non-foaming cleanser** - Morning and evening use

Systemic Therapy

1. **Low-dose Doxycycline** (40mg once daily) - 12-week course *Note: Anti-inflammatory dose, not antibiotic dose*

Trigger Management

- Avoid hot beverages, spicy foods, alcohol, and extreme temperature changes

- Use mineral-based sunscreen (SPF 50) daily
- Avoid fragranced skincare products

Follow-up Care

- Reassessment in 6 weeks
- Photodocumentation at each visit to monitor progress
- Consider laser therapy for telangiectasia if condition stabilizes after 3 months

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SKIN BARRIER ASSESSMENT

Transepidermal Water Loss (TEWL): 12.4 g/m²/h (Slightly elevated)
Skin pH: 5.8 (Within normal range)
Hydration Level: 35 (Moderately dehydrated)

Recommendations:

- Ceramide-containing moisturizer twice daily
- Avoid hot water during cleansing
- Consider overnight humidifier use

ADDITIONAL NOTES

Patient's skin concerns appear to be primarily inflammatory rather than infectious or allergic in nature. The absence of comedones and presence of telangiectasia strongly support the diagnosis of papulopustular rosacea over acne vulgaris.

The mild barrier dysfunction detected suggests that addressing skin barrier repair will be an important adjunct to anti-inflammatory therapy.

Stress was identified as a potential trigger, and stress-reduction techniques have been discussed with the patient.

IMAGE DOCUMENTATION

[Clinical photographs attached in secure patient portal]

This report was generated using AI-assisted dermatological analysis tools combined with professional clinical assessment. Digital imaging analysis through DermAI™ was used as a diagnostic aid and validated by board-certified dermatologist examination.

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