**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

**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

**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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