



STUDY TO ASSESS THE SEVERITY OF MELASMA USING THE MSI SCALE IN INDIVIDUALS AGED 25–60 YEARS IN BAGALKOT – A PILOT STUDY

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Abstract

Background: Melasma is a common acquired hyperpigmentation disorder affecting sun-exposed areas of the skin, often leading to cosmetic and psychosocial distress. The Melasma Severity Index (MSI) provides a validated and standardized approach for assessing disease severity.

Objective: To assess the severity of melasma using the MSI scale in individuals aged 25–60 years in Bagalkot, India, through a pilot study.

Methods: A cross-sectional observational study was conducted on 30 patients attending OPD, IPD, peripheral centre's, and health camps organized by BVVS Homoeopathic Medical College and Hospital, Bagalkot. Data regarding age, occupation, and MSI parameters (darkness, homogeneity, and area involved) were collected. MSI scores were calculated using standardized criteria.

Results:

Homogeneity: 56.7% had small patchy areas, 23.3% had patches >2 cm, 16.7% presented with specks, and 3.3% were normal.

Darkness: 63.3% had mild hyperpigmentation, 20% moderate, and 16.7% barely visible pigmentation. No severe pigmentation was reported.

Area covered: 40% had 30–49% involvement, 33.3% had 11–29%, 16.7% had 50–69%, and 10% had <10% involvement.

Most affected participants were middle-aged housewives.

Conclusion: Mild-to-moderate melasma is prevalent in Bagalkot, particularly among middle-aged women. The MSI scale was found to be a practical tool for clinical severity assessment. Larger studies are warranted to validate findings and explore contributing risk factors.

Keywords: Melasma, MSI scale, hyperpigmentation, Bagalkot, pilot study

Introduction

Melasma is an acquired pigmentary disorder characterized by irregular, symmetric, brown-to-gray macules, commonly localized to sun-exposed areas of the face (1). Although benign, it can significantly impair quality of life by affecting cosmetic appearance and psychological well-being (2). The condition is more frequent in women and in individuals with Fitzpatrick skin types III–V (3).

The Melasma Severity Index (MSI) offers an objective method to grade severity based on pigmentation intensity, area of involvement, and homogeneity (4). Bagalkot, a semi-arid region of Karnataka with high sun exposure, presents an environment conducive to melasma, yet limited regional data are available.

This pilot study was conducted to assess the severity of melasma using the MSI scale in adults aged 25–60 years in Bagalkot.

Aim

To assess the severity of melasma among individuals aged 25–60 years in Bagalkot using the MSI scale.

Objectives

To assess the severity of melasma among individuals aged 25–60 years in Bagalkot using the MSI scale.

To analyze the demographic profile (age, gender, and occupation) of patients presenting with melasma.

To evaluate the pattern of pigmentation in terms of homogeneity, darkness, and area of involvement using the MSI scoring system

Materials and Methods

Study Design: Cross-sectional, observational pilot study.

Study Location: OPD, IPD, peripheral centers, and health camps conducted by BVVS Homoeopathic Medical College and Hospital, Bagalkot, Karnataka, India.

Study Duration: [Insert duration, e.g., 2 months].

Sample Size: 30 participants.

Inclusion Criteria

Adults aged 25–60 years clinically diagnosed with melasma (epidermal, dermal, or mixed).

Willingness to participate.

No prior use of lasers or chemical peels within the last 3 months.

Exclusion Criteria

Pregnant or lactating women.

Active systemic diseases affecting skin.

Known allergy to homeopathic medicines.

Patients undergoing other treatments for melasma.

MSI Scale

Severity was assessed using the MSI scale across four regions (forehead, right malar, left malar, and chin). Each region was scored for pigmentation intensity (0–4) and area involved (%), using the formula:

$$MSI = \frac{\text{Intensity} \times \text{Area} (\%) }{4}$$

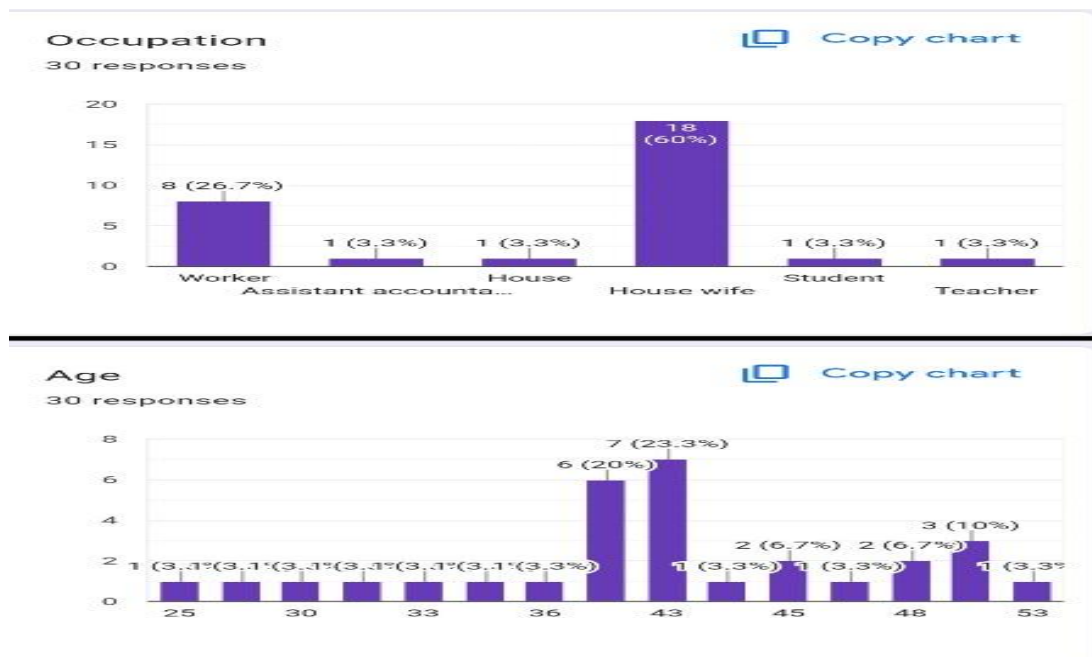
Total MSI = Sum of scores across all regions.

Mild: MSI ≤ 5

Moderate: MSI 5.1–10

Severe: MSI > 10

Result

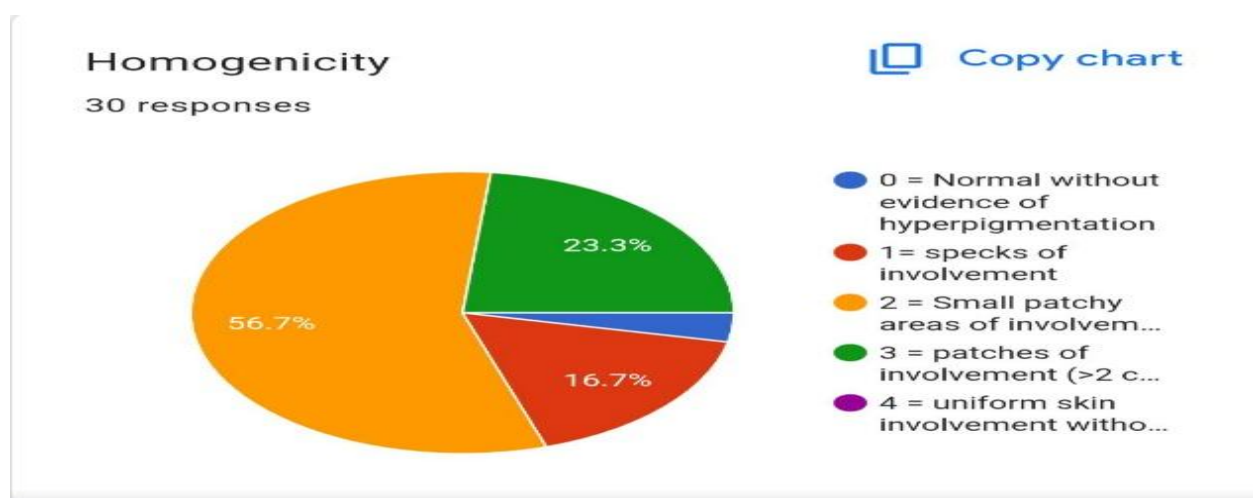


Demographic Profile

Housewives comprised 60% of cases.

The peak age group was 40–45 years (43 years: 23.3%, 42 years: 20%).

MSI Parameters



Homogeneity

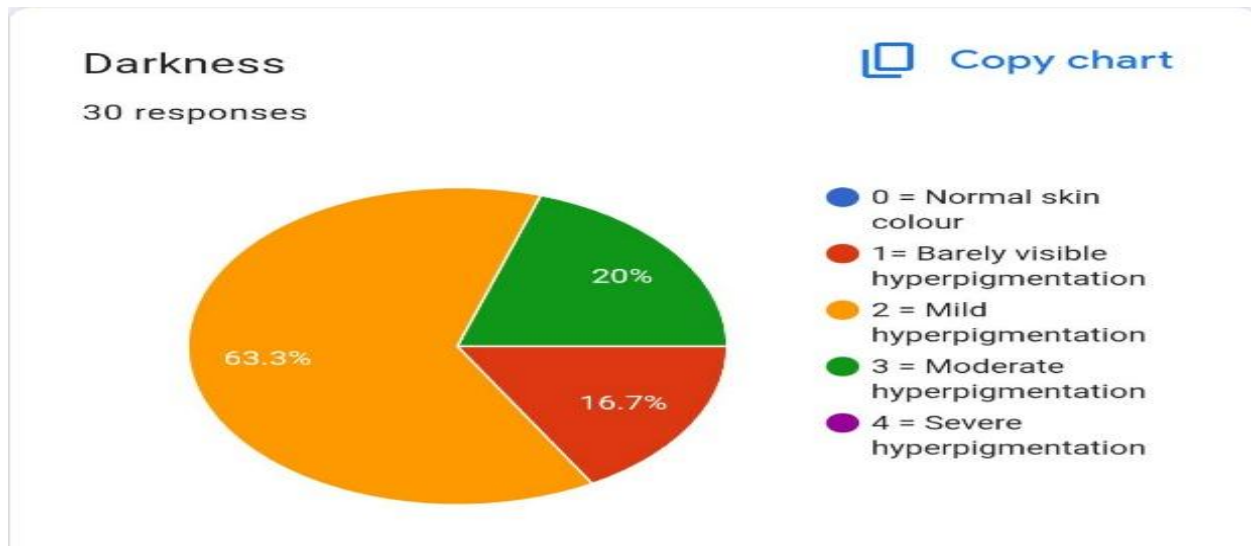
56.7% – Small patchy areas

23.3% – Patches >2 cm

16.7% – Specks of involvement

3.3% – Normal

Darkness



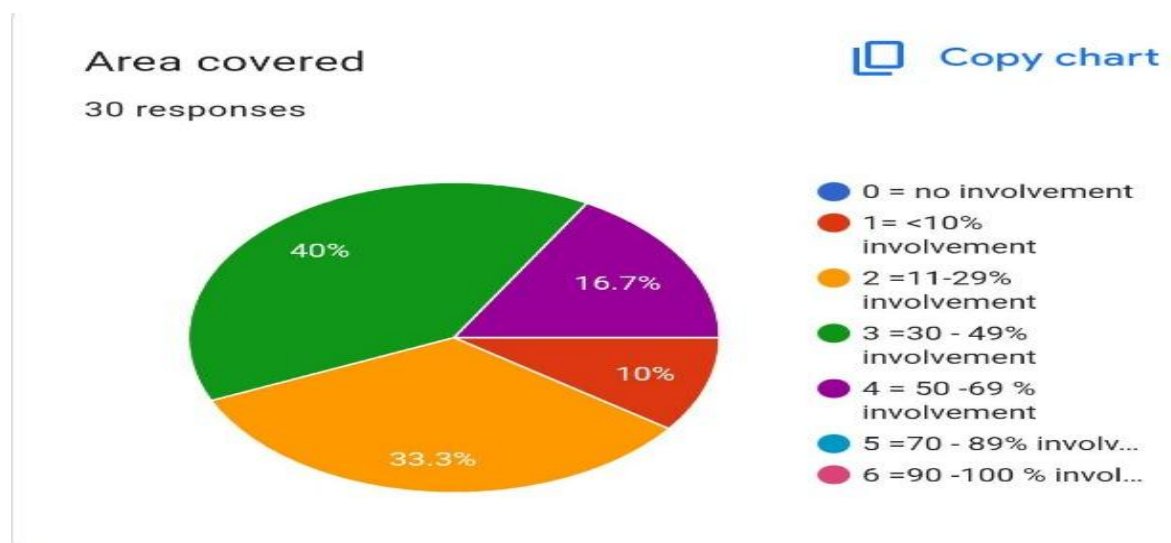
63.3% – Mild hyperpigmentation

20% – Moderate hyperpigmentation

16.7% – Barely visible hyperpigmentation

0% – Severe

Area Covered



40% – 30–49% involvement

33.3% – 11–29% involvement

16.7% – 50–69% involvement

10% – <10% involvement

(Figures 1–4 represent occupation, age distribution, area covered, darkness, and homogeneity.)

Discussion

This pilot study demonstrates that melasma in Bagalkot is predominantly mild to moderate, affecting mainly middle-aged women, particularly housewives. Contributory factors may include hormonal influences, cumulative sun exposure, and lifestyle practices, aligning with earlier studies (5,6).

The MSI scale was found to be practical and reproducible in clinical evaluation. The predominance of patchy pigmentation suggests early recognition and preventive measures—such as sun protection counselling—may reduce disease burden.

From a homeopathic perspective, treatment requires individualized prescriptions based on constitutional and miasmatic predispositions. Remedies often considered include *Sepia* (for hormonal and menopausal associations), *Sulphur* (for chronic cutaneous conditions), *Natrum muriaticum* (for solar-related pigmentation), and *Thuja* (for sycotic tendencies) (7,8). However, further controlled studies are needed to validate therapeutic outcomes.

Conclusion

This pilot study highlights that melasma in Bagalkot predominantly presents as mild-to-moderate patchy pigmentation in middle-aged women. The MSI scale was effective in quantifying severity. Larger community-based studies are recommended to validate these findings and investigate key aggravating factors.

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