# An Observational Study on Facial Hyperpigmentation in Geriatric Patients Attending the Dermatology OPD in a Tertiary Care Centre

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Abstract: This write up lays out a few commonly encountered pigmented lesions in the geriatric population attending a dermatology OPD in a tertiary care centre in India. Hyperpigmented lesions are very commonly seen in the dermatology OPD on a daily basis. This study is an observational study carried out on 100 patients attending the dermatology OPD in a tertiary care centre who satisfied the inclusion criteria of age more than 60 years with hyperpigmented lesions over the face. Such lesions can lead to psychosocial impairment as they are easily noticed. A further research with larger sample size and longer study duration can help us understand hyperpigmentation in geriatric population better.

Keywords: Pigmented lesions; geriatric population; hyperpigmentation

## 1. Introduction

People belonging to the geriatric age group suffer from a wide range of dermatoses <sup>[1]</sup>. Over the years extensive dermatological studies are being carried out in patients belonging to this population. Hyperpigmented lesions are commonly encountered in the dermatology OPD on a daily basis [<sup>2]</sup>. There is paucity of data on geriatric dermatoses and there isn't sufficient data available on hyperpigmented lesions in the geriatric population [<sup>1]</sup>. Hyperpigmentation of the skin could be due to an increase in number of melanocytes or due to various other underlying pathologies <sup>[2]</sup>. This article lays out the common facial hyperpigmented lesions in geriatric population encountered in the dermatology OPD in a tertiary care centre.

## 2. Methodology

This study is an observational study carried out on 100 patients in dermatology OPD in a tertiary care centre who satisfied the inclusion criteria of age more than 60 years with hyperpigmented lesions over the face.

Patients aged less than 60 years were excluded.

A thorough cutaneous examination with a woods lamp, dermoscopy and skin biopsy have been performed wherever required.

## 3. Results

In this study, the patients belonged to the age group of 60 - 88 years

Out of 100 patients, 55 patients were males and 45 were females

The male to female ratio was 1.2: 1

Out of 100 patients 30 patients had maturational pigmentation.

Out of 100 patients, 29 patients had PPD (Paraphenylenediamine) dermatitis

Out of 100 patients, 18 patients had post inflammatory hyperpigmentation, 6 due to

underlying dermatoses like psoriasis, lichen simplex chronicus; 4 cases were due to trauma; 8 cases

were due to healing tinea faciei.

Out of 100 patients, 2 patients were diagnosed to have lichen planus pigmentosus

Out of 100 patients, 8 patients had fixed drug eruptions.

Out of 100 patients, 6 patient had polymorphous light eruptions

Out of 100 patients, 7 patients had melasma.



Figure 1 showing maturational pigmentation over the face of a 78 year old man

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Figure 2 showing a 62 year old woman with melasma

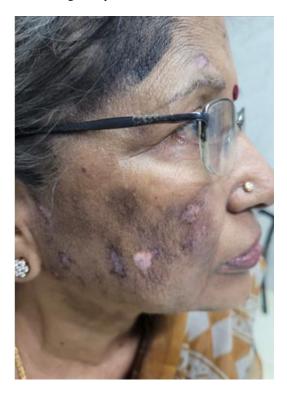


Figure 3 Showing a 69 year old woman with PPD dermatitis

## 4. Discussion

Hyperpigmentation can be caused due to a variety of reasons. The most common pigmented lesions encountered in our study were found to be maturational pigmentation and PPD dermatitis<sup>[3]</sup>.

Maturational pigmentation occurs as dark ill defined patches of the skin, usually on the lateral sides of the face, especially below the cheekbones and at the temples. It is thought to be associated with metabolic syndrome. Histopathologically it shows increased melanocytes in the basal cell layer<sup>[2]</sup>.

PPD dermatitis Paraphenylenediamine (PPD) is a chemical substance that is widely used as a permanent hair dye. The

partially oxidised forms of which cause a type of allergic reaction in certain individuals. Histopathology usually shows an eczematous type reaction with spongiosis.

Post inflammatory hyperpigmentation <sup>[4]</sup> is due to injury caused by inflammation due to various reasons and it usually resolves spontaneously over time.

Melasma is another condition commonly affecting elderly females. It could be either dermal or epidermal and can be differentiated using a wood's lamp. Histopathology shows disruption of the basement membrane with melanophages and pendulous melanocytes.

Fixed drug eruptions are cutaneous reactions that occur over the same location due to re - exposure to a particular drug. It is very common in elderly individuals as polypharmacy is higher among older age groups. Histopathology, it shows an increased number of eosinophils and civatte or colloid bodies <sup>[3]</sup>.

# 5. Conclusion

Hyperpigmented lesions over the face have a great impact on patient's esthetic appearance leading to psychosocial impairment. A further research with larger sample size and longer study duration can help us understand facial hyperpigmentation in geriatric population better.

#### Consent

As per international standard or university standard, patients' written consent has been collected and preserved by the author (s).

#### **Competing Interests**

Authors have declared that no competing interests exist

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