



## An Observational Cross Sectional Study of Women with Pigmentation on Nape of Neck from a Tertiary Care Centre in North India

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### Abstract

**Background and Aims:** *Pigmentation of nape of neck is a fairly common disorder in Indian women but reports comprising a sizeable number of patients are lacking in the literature. We describe the clinical-epidemiological features of 80 women with pigmentation on the nape of neck.*

**Materials and Methods:** *The observational cross sectional study comprised of female patients with neck pigmentation presenting to pigmentation clinic of outpatient department of dermatology of Lady Hardinge Medical College and associated Smt Sucheta Kriplani Hospital, New Delhi over a period of nine months. A retrospective analysis of medical records of patients including relevant history, examination and investigations was undertaken.*

**Results:** *Majority of patients had macular amyloidosis (45%), followed by lichen Planus Pigmentosus (40%), tanning (4%), toxic melanosis (4%), biphasic amyloidosis (4%), lichen simplex chronicus (1%), Beckers nevus (1%) and ashy dermatoses (1%). These dermatoses cause cosmetic disfigurement thus compromising the quality of life and can have annoying symptoms like pruritus and photosensitivity.*

Though pigmentation of nape of neck is a common disorder in Indian women but reports comprising a sizeable number of patients are lacking in the literature. Frequent forms comprise lichen planus pigmentosus (LPP), macular amyloidosis (MA), pigmented contact dermatitis, ashy dermatosis and tanning.

This observational, cross sectional survey group comprised of female patients visiting dermatology outpatient department for neck pigmentation at Smt Sucheta Kriplani Hospital, New Delhi, a tertiary care referral centre in North India over a period of nine months. The study group comprised of female patients with varying ages, occupations and social backgrounds with neck pigmentation. Ethical clearance was obtained from the

Institutional Review Board of the hospital. Confidentiality was maintained at all levels of study. Demographic and clinical data (including age, education level, employment status, dermatological diagnosis and its duration, pruritus, photosensitivity, use of loofah) was collected from all participants. Complete relevant dermatological examination was documented. Biopsy for routine histopathology and stain for amyloid (when indicated) were done in all consenting patients.

A total of 80 female patients were documented with mean age of 32 years. Majority of patients had macular amyloidosis (45%), followed by LPP (40%), tanning (4%), toxic melanosis (4%), biphasic amyloidosis (4%), lichen simplex

chronicus (1 %), Becker's nevus (1%) and ashy dermatoses (1 %).

Duration of the condition ranged from 1 month to 20 years. The hue of pigmentation varied from slate grey to brownish black. 48 % patients reported pruritus. Photosensitivity was seen in 16 % patients.

Among LPP patients 16 % patients had reticulate pigmentation, 67 % had blotchy and 16 % had diffuse pigmentation. 44 % of macular amyloidosis patients gave consent for biopsy and 56 % of them had amyloid stain positivity. 67 % of lichen planus pigmentosus patients gave consent for biopsy and 95 % were consistent with the clinical picture.

Pigmentation on the upper back and the nape of neck is a fairly common problem in Indian women. However this aspect has been poorly studied previously. The most common cause of pigmentation on neck in our study was macular amyloidosis (MA) followed by lichen planus pigmentosus (LPP).

The mean age of the patients in our study was 32 years, a finding similar to previous such studies.<sup>1,2</sup> 3 patients gave the history of using loofah or abrasive brushes. 44 % of macular amyloidosis patients gave consent for biopsy and only little more than half of them had amyloid stain positivity. This finding corroborates with earlier studies done.<sup>1</sup>

The average age at presentation of LPP was 36 years. This finding is similar to reports by Kanwar and Vega et al.<sup>3,4</sup> Our results regarding symptomatic lesions in LPP( 48.75% ) were similar to earlier reported studies<sup>3,4,5</sup>. 95 % of LPP patients had histopathological features consistent with the clinical picture. Most of the changes noted were identical to earlier reports reinforcing the hypothesis that LPP probably represent a lichenoid reaction to an unknown agent<sup>3</sup>

Nape of neck and upper back, by virtue of being relatively exposed to sunlight and frictional forces is often affected by pigmentation.<sup>4,5,6</sup> Our study highlights the bewildering array of these pigmentary dermatoses. These dermatoses

compromise the quality of life of patient not just by causing a cosmetic blotch, but also annoying symptoms like pruritus and photosensitivity.<sup>7,8,9,10</sup> Often overlooked by physician but a chief concern for patient needs a detailed evaluation and larger epidemiological studies would help to find the possible trigger mechanism and possibly therapies targeting this spectrum of pigmentary dermatoses.



**Figure 1** Rippled pigmentation of macular amyloidosis (neck)

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