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# Evaluation of Periorbital Hyperpigmentation among Young Females Age Group of 20-25 Years: A Study from Tamil Nadu, India

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**Abstract:- Periorbital hyperpigmentation is a disorder that is frequently seen. Numerous exogenous and endogenous conditions might lead to periorbital hyperpigmentation. Idiopathic cutaneous hyperchromia of the orbital region, periorbital hyperpigmentation, periorbital melanosis, dark circles, infraorbital darkening, and infraorbital discoloration. It may have an impact on someone's emotional health and quality of life. The Sree Ramakrishna Medical College of Naturopathy and Yogic Sciences and Hospital in Kulasekharam, Tamil Nadu, India, served as the study's location. The female participants in this research range in age from 18 to 23. Vocal consent was achieved after the purpose of the study was explained. Thirty people responded to this poll. There are thirty questions on the survey. Specifics concerning allergies, low light, pain, sleep, cosmetics, tension, and gadget use were all included in the questionnaire. Female participants who were unwilling or obstinate were not allowed to continue with the study. It has been found that most women encounter sleep problems, boredom, discomfort, tiredness, depression, and irritation at work. Their everyday routines are not up to par. Women therefore need more information about the importance of a healthy diet, skincare routine, device use, water consumption, allergies, and sleep. Future medical interventions should concentrate on these areas in order to improve the young woman's general health and wellness.**

***Keywords:-*** *Allergy, Pain, Sleep, Make up, Stress.*

## I. INTRODUCTION

Periorbital hyperpigmentation is frequently seen. There are several exogenous and endogenous factors that contribute to periorbital hyperpigmentation. The reasons that lead to this condition include genetics or heredity, excessive pigmentation, periorbital edema, post inflammatory hyperpigmentation resulting from atopic and allergic contact dermatitis, excessive vascularity, shadowing caused by loose skin, and aging-related tear trough. The orbital region may exhibit periorbital hyperpigmentation, periorbital melanosis, dark circles, infraorbital discoloration, or infraorbital darkening. In the periocular area, it manifests as bilateral round or semicircular homogenous brown or dark brown pigmented macules. The condition is not well described. It has the potential to impact someone's quality of life and emotional health.

## II. PATHOPHYSIOLOGY

One symptom that is frequently seen is periorbital hyperpigmentation. Numerous endogenous and external conditions can lead to periorbital hyperpigmentation. Idiopathic cutaneous hyperchromia of the orbital region, periorbital hyperpigmentation, periorbital melanosis, dark circles, infraorbital darkening, and infraorbital discolouration. It is an ill-defined entity that manifests in the periocular area as bilateral round or semicircular homogenous brown or dark brown pigmented macules. Based on the clinical appearance, periorbital hyperpigmentation was divided into four categories: pigmented (primarily brown color), vascular (blue, pink, or purple color), structural (mainly skin color), and mixed type. The four subtypes of pigmented-vascular, pigmented-structural, vascular-structural, and a combination of the three were included in the mixed type of dark eye circle. The pigmented variety has an infraorbital brown color.

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When periorbital puffiness is present, the vascular type manifests as an infraorbital blue, pink, or purple hue. When facial anatomic surface outlines are established, structural type manifests as structural shadows. The loss of fat with bony protrusion and infraorbital palpebral sacks are linked to it. Two or three of the aforementioned appearances are combined in a mixed type. Melanocytes within the dermis are indicative of dermal melanocytosis. Hyperpigmentation around the eyes caused by dermal melanocytosis may have acquired or congenital origins. Hyperpigmentation resulting from atopic and allergic contact dermatitis, as well as other dermatological disorders, can also cause excessive pigmentation. In certain cases, such as when there are permanent drug eruptions, drugs may also be the cause of this hyperpigmentation. As in atopic dermatitis and allergic contact dermatitis, periorbital hyperpigmentation can result from rubbing and scratching the area around the eyes as well as fluid buildup brought on by allergies. Another typical cause of periorbital hyperpigmentation is the thin skin covering the orbicularis oculi muscle and the superficial placement of the vasculature. This disorder, which is more noticeable in the inner part of the eyelid and usually more noticeable during menstruation, affects the entire lower eyelids and gives them a violaceous appearance due to large blood vessels covered by a thin layer of skin. Tear troughs are an anatomical site situated over the inferio-medial orbital margin that becomes depressed with aging. It's an age-related alteration. It generally happens as a result of cheek descent, which causes the orbital rim area to seem hollow, as well as subcutaneous fat loss and thinning of the skin covering the orbital rim ligaments. Periorbital edema: Both local and systemic factors may contribute to the accumulation of fluid in the eyelid region because of its porous nature. In the morning or after eating salty meals, edema is worse.

## III. MATERIALS AND METHOD

This research was carried out at the Sree Ramakrishna Medical College of Naturopathy and Yogic Sciences and Hospital, Kulasekharam, Tamil Nadu, India. Participants in this study are female and range in age from 18 to 23. Vocal agreement was obtained once the purpose of the study was explained. There were 30 responses to this survey. 30 questions make up the survey. The survey asked questions concerning low light, allergies, pain, sleep, cosmetics, stress, and gadget use. Study participants who were unwilling or obstinate were not allowed to participate.

## IV. RESULT

The female responders ranged in age from 18 to 23. In all, thirty women were present. Table 1.1 demonstrates that, eight hours of sleep each night, 20% and 80% of people do not have eight hours of enough sleep. There are no people who smoke 100% continuously. Have a propensity of often rubbing the eyes 60% and 40% of people do not regularly massage their eyes.

Table 1. Evaluation of Periorbital Hyperpigmentation Age Group 20-25 Years

| S.NO | CONTENT | YES (%) | NO (%) |
|---|---|---|---|
| 1 | Are you having an adequate sleep for 8 hours | 20% | 80% |
| 2 | Do you have the habit of smoking | Nil | 100% |
| 3 | Do you have the habit of rubbing the eyes frequently. | 60% | 40% |
| 4 | Do you feel often tired | 83.33% | 16.66% |
| 5 | Do you intake 3-4 liters of water daily | 20% | 80% |
| 6 | Are you suffering from anaemia | 36.66% | 63.33% |
| 7 | Is your age above 60 years | Nil | 100% |
| 8 | Do you have vitamin K deficiency | 6.66% | 93.33% |
| 9 | Whether you have over exposure to sun | 10% | 90% |
| 10 | Do you wear spectacles | 33.33% | 66.66% |
| 11 | Do you often cry | 36.66% | 63.33% |
| 12 | Do you have the habit of scratching the skin around the eyes frequently | 30% | 70% |
| 13 | Do you have vitamin E deficiency | 13.33% | 86.66% |
| 14 | Are you suffering from any liver disease | 3.33% | 96.66% |
| 15 | Do you have changes in Thyroid functions | Nil | 100% |
| 16 | Any Family members have dark circles | 40% | 60% |
| 17 | Do you have the habit of TV/Mobile/Computer for a longer duration | 53.33% | 46.66% |
| 18 | Are you intake any glaucoma drugs | Nil | 100% |
| 19 | Do you have vitamin D deficiency | 16.66% | 83.33% |
| 20 | Do you have the habit of TV/Mobile/Computer in dark room | 66.66% | 33.33% |
| 21 | Do you have the habit of consuming alcohol | Nil | 100% |
| 22 | Whether you intake any birth control pills | Nil | 100% |
| 23 | Whether you are stressed | 93.33 % | 6.66 % |

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| | | | |
|---|---|---|---|
| 24 | Do you have any allergy because of using hair dye | 3.33% | 96.66% |
| 25 | Would you have any strain in eyes while watching TV or Mobile phones | 45.66% | 53.33% |
| 26 | Do you have any allergy | 26.66% | 73.33% |
| 27 | Do you have the habit of sleeping without removing eye keep up | 13.33% | 86.66% |
| 28 | Do you have Vitamin A deficiency | 16.66% | 83.33% |
| 29 | Are you intake ant ocular hypotensive drugs | Nil | 100% |
| 30 | Do you have Vitamin B12 deficiency | 13.33% | 86.66% |

Frequently feel worn out it is not common for 83.33% and 16.66% to feel fatigued.20% of people drink the recommended minimum of 3–4 liters of water each day, whereas 80% do not. Having anemia, 36.66% and 63.33% of the population do not have anemia. Nobody is older than sixty years 100%. Lacking vitamin K 6.66% and 93.33%, there is no vitamin K insufficiency.10% of people have too much sun exposure, whilst 90% do not. Put on eyeglasses, 33.33% and 66.66% of people do not wear glasses. Weep frequently, 3.6.33% and 36.66% do not weep frequently. The regular practice of picking at the skin surrounding the eyes, 30% and 70% of people do not regularly scratch the area surrounding their eyes. 86.66% lack vitamin E and do not have vitamin E deficiency, is 13.33%. Having a liver disease 3.33% and 96.66% do not have liver disease. Nobody's thyroid has changed in any way 100%. Dark circles surround parents and grandparents, 40% and 60% without black circles. Possess the bad habit of spending a lot of time on TV, cellphones, computers, or laptops, 53.33% and 46.66% of respondents say they don't usually watch TV, computers, laptops, or mobile phones for extended periods of time. Nobody takes glaucoma medication, 100%. Lacking in vitamin D 16.66% and no vitamin D deficit 83.33% of people. Have a practice of viewing TV, smartphones, or computers in dimly lit rooms, 33.33 % and 66.66% don't observe TV, mobile devices, or computers in dimly lit rooms as a habit. Nobody consistently drinks alcohol 100% and also 100% of people do not take birth control pills.93.33% of people are stressed, while 6.66% have not. Possess allergies as a result of applying hair dye 3.33% and 96.66% are allergy-free. Experience eye discomfort whether using a phone or watching TV, 53.33% and 45.66% do not experience eye strain. Having an allergy 26.66% and 73.33% of people do not have any allergies. Make it a practice to go to sleep without taking off eye makeup, 13.33% and 86.66%, respectively, do not sleep with their makeup on. Lacking vitamin A, 16.66% and 83.33%, there is no vitamin A insufficiency. Nobody uses ocular hypotensive medications 100% exclusively. Possess a vitamin B12 deficit of 13.33% and 86.66% do not have a vitamin B12 deficiency.

## V. DISCUSSION

20% fewer women get the recommended 8 hours of sleep per night. The majority of women, 60%, have a habit of scratching their eyes frequently, and 83.33 feeling weary most of the time.80% report not drinking at least 3–4 liters of water each day. More females, 36.66% with anemia also wear glasses, 33.33%. Weep frequently, 36.66%.30% of ladies scrape the skin around their eyes on a regular basis.53.33 % of females report being habitual long-term viewers of TV, computers, mobile phones, or laptops.16.66% of people are vitamin D deficient.66.66% of females report watching TV, using a mobile device, or using a computer in a dark environment, and 93.33% report feeling stressed out. More females, 45.66%, have eye strain when using their phones or watching TV. 26.66% suffer from allergies, and 13.33% of people sleep without taking off their eye makeup. Inadequate in vitamin A, 16.66%. Not everyone who takes ocular hypotensive drugs exclusively is 100%. A deficiency of vitamin B12 is 13.33%.

## VI. CONCLUSION

It has been found that most women encounter sleep problems, boredom, discomfort, tiredness, depression, and irritation at work. Their everyday routines are not up to par. Women therefore need more information about the importance of a healthy diet, skincare routine, cosmetics,device use, water consumption, allergies, and sleep. Future medical interventions should concentrate on these areas in order to improve the young woman's general health and wellness.

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