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Psycho-social Implications of Pigmentary Disorders in Asia

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Colours have fascinated humans since ancient times. Colorful paintings of Ajanta and Ellora caves that date back many years BC are a testimonial to this fact. Various colourful pigments have been used by tribal communities to paint the bodies, particularly at ceremonies. In the past, men with different colours have been graded as superior or inferior. It has been the cause of wars and racial discrimination. Human skin is the most visible aspect of the human phenotype and is characterized by the great range of genetically determined skin colors present within a single species. The skin is one of the most important components of an individual's physical appearance. We may be advancing towards a world where skin color is seen simply as a descriptor rather than a defining factor for an individual but people who are differently or abnormally coloured (hypo or hyperpigmentation) still face severe psycho-social problems.

The biological basis of human skin colour variation is a subject that has been addressed by numerous authors over the past years. Research regarding mechanisms implicated in the determination of human skin colour has

progressed considerably over the past few decades. Optical effects on colour arising from variations in lighting conditions and skin surface topography are well known. The basic or intrinsic colour differences between individuals are primarily determined by the presence of biological pigments in the skin. In this regard, it is generally accepted that variation in the quantity, packaging and distribution of epidermal melanin accounts for most of the ethnic variation in human skin colour¹.

Analyses of melanosomes have revealed a significant variation in size with ethnicity: African skin having the largest melanosomes followed by Indian, Mexican, Chinese and European. On the basis of these findings, Simon et al proposed that variation in skin pigmentation is strongly influenced by both the amount and the composition (or colour) of the melanin in the epidermis².

There are some pigmentary disorders that are either unique to Asia or more prevalent in Asia. These differences are due to the complex interaction of, the genetic composition, the environment and the cultural practices. For example, Hori's nevus (Acquired Bilateral Nevus of Ota-like Macules) is a fairly common pigmentary disorder among Oriental (Mongoloid) ethnic communities. Lichen planus pigmentosus appears to be more common among those in the Indian subcontinent. In general, even a disease that causes a subtle change in pigmentation in a fair-skinned Caucasian (e.g. vitiligo, pityriasis versicolor) may cause a major psycho-social impact in a darker-skinned individual. The two most important pigmentary disorders in Asia perhaps are vitiligo and melasma. The other major disease groups/conditions more relevant to Asians are: solar

lentigo, Hori's nevus, Nevus of Ota, post-inflammatory hyper/hypopigmentation, dark eye circles (especially in Indian type of skin), progressive macular hypomelanosis, acanthosis nigricans related pigmentation, ashy dermatoses, and melanocytic nevi. Sometimes cultural beliefs of different communities lead to increased pigmentation-related dermatological consultations. For example, among many Chinese, there is a belief that nevi (moles) in certain parts of the body are inauspicious, and many wish to remove pigmented nevi in certain places on the face and trunk, for cultural reasons more than for cosmetic or medical reasons.

Disorders of pigmentation are within the first 10 disease conditions for which patients seek treatment at outpatient skin clinics in many Asian countries (data from India, Sri Lanka, Singapore). Due to increasing economic affluence in many Asian countries, the patients' demand for treating pigmentary disorders is also increasing.

Pigmentary Disorders and Social Stigma

Stigma is a society's negative evaluation of a particular feature or behavior. Goffman⁴ defined stigma as "an attribute that is deeply discrediting, that reduces a bearer from a whole and usual person to tainted, discounted one". Both hyperpigmentation and depigmentation are associated with stigma. Skin lesions of pigmentary disorders are particularly difficult for many patients to get used to, because such lesions sometimes lead to a sense of inferiority or dirtiness; a feeling of lack of control over the external appearance of the body.

Handicap due to these skin diseases may not be as explicit as that associated with a broken limb, but the psychological consequence of skin diseases may be just as important ³.

Pigmentary disorders of skin are usually visible and society greets people who have them in much the same way as it does to anyone else who appears to be 'different'. They are stared at, or subjected to whispered comments, antagonisms, insults or isolation. People with these disorders often develop negative feelings about it, which are reinforced by their experiences over a number of years. Most patients report feelings of embarrassment, which can lead to low self-esteem and social isolation. Camouflage with make-up may be used to increase self-confidence but it can be time consuming and expensive. A great deal of time may have to be set aside to apply them and maintain an effective skin care regimen. This has to be reconciled with the demands of school, employment, family and day-to-day life.

Since ancient times, patients with vitiligo suffered the same mental abuses as lepers. In actual fact vitiligo was referred as 'Sweta Kustha' meaning "White leprosy". Vitiligo is disfiguring in all races but particularly more so in dark skinned people because of the strong contrast⁵. In India and perhaps elsewhere, men, women and children with vitiligo lesions face severe psychological and social problems. It is more acute in the case of young women and children. The first prime minister of India, late Jawaharlal Nehru ranked vitiligo as one of three major medical problems of India; the other two being leprosy and malaria⁶. In

India vitiligo is unfortunately associated with some religious beliefs⁷. In some Indian religious texts where reincarnation is believed, it is said that a person who did “Guru Droh” (a ‘sin’) in his previous life suffers from vitiligo in this life. Thus people suffering from vitiligo in India have more social problems than in other countries. This is seriously felt among young unmarried women. This is particularly so because of the practice of arranged marriages. Thus a young woman with vitiligo from a poor socio-economic background has a little chance of getting married. A married woman who develops vitiligo after marriage may even have marital problems perhaps ending in divorce. Most patients with vitiligo report feelings of embarrassment, which can lead to a low self-esteem and social isolation⁵. Vitiligo lesions over the face may be particularly embarrassing and the frustration of resistant lesions over the exposed parts of hands and feet can lead to anger and disillusionment. Particularly in teenagers, mood disturbances including irritability and depression are common. Patients with vitiligo are very sensitive to the way others perceive them and they often withdraw from society, because of ‘anticipated rejection’. Sometimes, strangers and even close friends can make extremely hurtful and humiliating comments. The impact of such factors is profound, subjecting them to emotional distress, interference with their employment, or use ‘tension-lessening’, substances such as alcohol⁸. Severe depression has been known to lead to suicide⁹.

Parsad et al carried out a study in India to assess the nature and extent of the social and psychological difficulties associated with vitiligo and its impact on treatment by using dermatology life quality index (DLQI)¹⁰. The mean score of

DLQI of this study (10.67) was relatively high¹¹. Patients with high DLQI scores responded less favourably to a given therapeutic modality thereby suggesting that additional psychological approaches may be helpful in these patients. Papadopoulos et al have shown that counseling can help to improve body image, self-esteem and quality of life of patients with vitiligo, also having positive effect on the course of the disease. It is important to recognize and deal with psychological components of this disease to improve their quality of life and to obtain a better treatment response. Similarly patients with hyperpigmentary disorders like lichen planus pigmentosus, melasma, post-inflammatory discoloration, burns related depigmentation etc. too may suffer social and emotional consequences.

Skin Lightening Agents

There is a big following among people in many parts of Asia to use facial-lightening agents. This is partly due to aggressive marketing by companies who market skin-lightening creams. There are many facial colour-fading creams available with various trade names. As drug sale regulatory mechanisms are poorly executed in many Asian countries, patients sometimes use preparations containing potent corticosteroids that obviously can lead to many side-effects. Similarly there is a risk of exogenous ochronosis with the use of bleaching products containing more than 4% hydroquinone. However external ochronosis due to hydroquinone appears to be less common among Asians, it is not clear whether this might be due to under-reporting or under-diagnosis.

Pigmentary disorders in Asian skin should not be construed as trivial cosmetic changes because they can have significant psychological impact in subjects who experience them¹². Understanding the psycho-social effects that these disorders have on patients' lives will help dermatologists prioritize therapy and research.

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