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Psychosocial Aspects of Vitiligo

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ABSTRACT

Vitiligo is a skin disease caused by various factors with an etiology that is poorly understood. In current scenario it is not an uncommon disease as it has a history of more than 3000 years but it is often confused with leprosy. This disease effect people physically, socially, psychologically and occupationally. But with proper awareness about this disease people can easily cope up with its various effects. Doctors and mental health professionals with proper education about disease help patient in not only recovering with the disease but also in stabilizing the psychosocial effects of vitiligo. Proper support of family and friends and mental support from doctor make patients lead a normal life. Suffering caused by vitiligo can be treated by a proactive approach. Hence proper knowledge about the disease, proper treatment by doctor, proper counseling from mental health professional and proper support of family and friends can help patient in coping the psychosocial effects of vitiligo.

Keywords: Vitiligo, Psychosocial aspects, depression, coping.

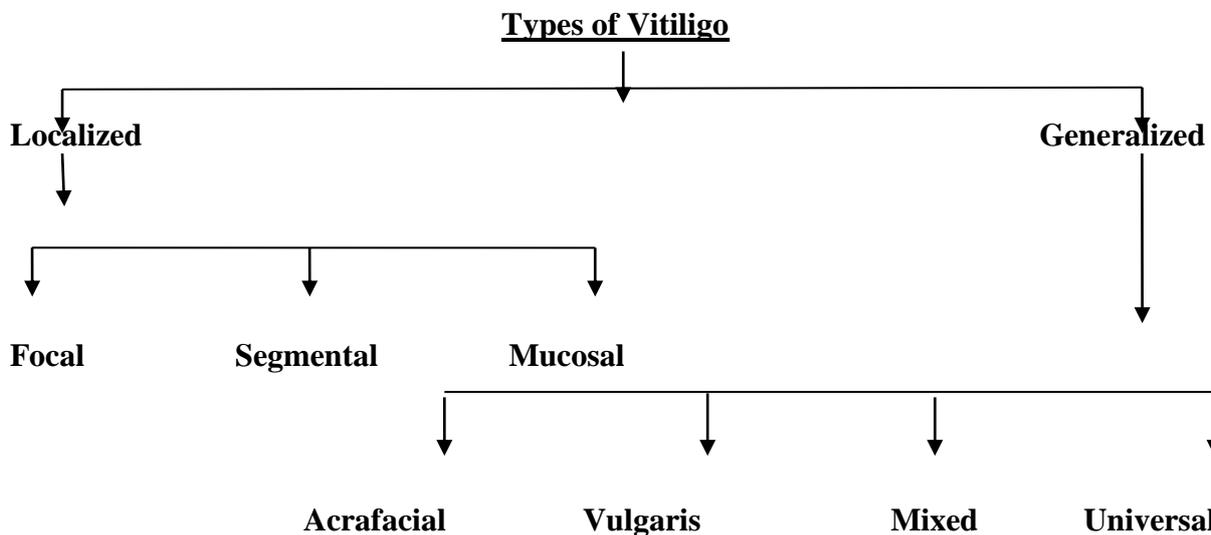
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INTRODUCTION

Vitiligo is a chronic skin disease which is also known as “Shweta Kustha” i.e “White Leprosy”. Vitiligo has a history of more than 3000 years as it was first reported in early Vedic and Egyptian texts. Earlier vitiligo was often confused by leprosy and led to greater Condemned of affected individuals¹.

Vitiligo happens because of the destruction of cells Which the skin. known as melanin. Melanocytes cells play an important role in skin pigmentation. In vitiligo these melanocytes cells demolish which leads to depegmentation or hypo pigmentation of cells. Vitiligo also affects the mucous membranes. Instruments were used in various studies to measure health related quality of life (QOL) such as the dermatology life quality index (DLQI). These studies have shown that vitiligo affects QOL²⁻⁴. Study done by Sharma et al (2001)⁵ in Indian vitiligo patients were showed that a significant proportion of patients were suffering from anxiety, depression and sleep disturbance leading to psychiatric problems. Various other studies showed the impact of the physical disfigurement caused by hypo pigmentation of cells, which leads to psychological misbalances. Various studies documented the importance of physical appearance in psychological adjustment in society⁶⁻⁷. A lower self-stern have seen in vitiligo patient in comparison to the normal population⁸. Women suffering from vitiligo experience greater QOL impairment then male⁹. It also has a psychosocial impact on children¹⁰.



Causes:

Vitiligo is a multifactorial disease with an etiology that is poorly understood¹¹⁻¹⁵. Definite cause of vitiligo is not known. It is thought to an autoimmune disease. Vitiligo occurs when our immune system mistakenly attacks some part of our body. In vitiligo the immune system destroy the melanocytes of our skin. A person is more likely to get the disorder because of one or more genes.

There is anecdotal and experimental evidence which shows that certain environmental chemicals are selectively toxic to melanocytes, both in culture and in vivo^{16, 17} and these are responsible for developing Vitiligo^{18, 19}. Some of these compounds have been added to bleaching cream and other products used to remove hyper pigmented lesions. Interestingly these cream are not toxic for all individuals. In addition to phenolic/catecholic derivatives, other chemicals have been shown to precipitate Vitiligo. These compounds include sulfhydryls systemic medications and arsenic²⁰⁻²⁷. List of all such compounds are given below in Table 1.

Table 1. List of compound responsible for developing Vitiligo.

Most potent phenol/catechol derivatives	Monobenzyl ether of hydroquinone	Hydroquinone
p-tert-Butylcatechol	p-tert-Butylphenol	p-tert-Amylphenol
Additional phenol/catechol derivatives	Monomethyl ether of hydroquinone	Monoethyl ether of hydroquinone (p-ethoxyphenol)
p-Phenylphenol	p-Octylphenol	p-Nonylphenol
p-Isopropylcatechol	p-Methylcatechol	Butylated hydroxytoluene
Butylated hydroxyanisole	Pyrocatechol (1,2-benzenediol)	p-Cresol
Sulfhydryls	b-Mercaptoethylamine hydrochloride (cysteamine)	N-(2-mercaptoethyl)-dimethylamine hydrochloride
Sulfanolic acid	Cystamine dihydrochloride	3-Mercaptopropylaminhydrochloride
Miscellaneous	Mercurials	Arsenic
Cinnamic aldehyde	p-Pheylenediamine	Benzyl alcohol
Azaleic acid	Corticosteroids	Optic preparations
Eserine (physostigmine)	Diisopropyl fluorophosphate	Tio-tepa (N, N ϕ , N $\phi\phi$ -triethylene-thiophosphoramide)
Guanonitrofuracin	Systemic medications	Chloroquine

Occurrence:

Vitiligo occurs at any age but mostly people develop it in their twenties. It affects all race and both sexes equally, however, it is more noticeable in people with dark skin.

Current scientific research shows that there is a genetic component that renders the melanocytes fragile leading to its apoptosis that in turn predispose individual to developing the disease. A precipitating factor can more easily induce the fragile melanocytes to initiate programmed cell death or apoptosis. Various precipitating factors are sunburn, pregnancy, stress and exposure to cytotoxic compounds. Various other factors can also trigger up regulation of melanin synthesis by melanocytes like UV induces melanocytes-stimulating hormone following overexposure to the Sun^{28, 29}, estrogen during pregnancy^{30, 31} and cytokines during stress and trauma³²⁻³⁶. Quinine and indoles are generated as intermediates during biochemical synthesis of melanin. These intermediates themselves are cytotoxic to melanocytes^{37, 38}. Therefore elevated oxidative stress resulting from the increased generation

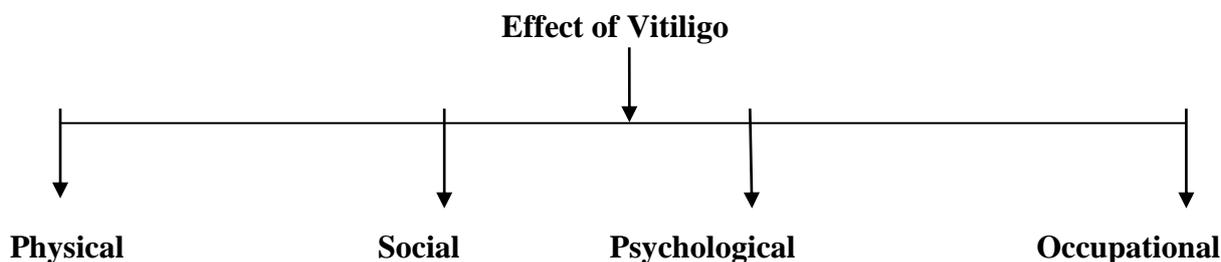
of these intermediates is above the threshold that can be combated by genetically susceptible Vitiligo melanocytes and consequently cytotoxicity/cell death is induced. Finally, an autoimmune response can be initiated that facilitates melanocytes removal and perpetuates the disease³⁹.

People suffering from certain autoimmune disease such as hyperthyroidism are more likely to get vitiligo than people who don't have any autoimmune disease. Scientists don't know why vitiligo is connected with these diseases. However, most people with vitiligo have no other auto immune disease. Vitiligo also seen in families, children with parents having this disorder are more likely to develop vitiligo. However most of them don't get the disease even if their parents have it.

Effects:

Self image and social relationships are highly affected by any type of skin diseases especially during the vulnerable times of childhood and adolescence. The psychosocial aspects of Vitiligo can be described by stress due to effect of disease. Vitiligo patients highly suffered from anxiety and depression. Patient quality of life is affected.

Deficiency in pigment synthesized by the melanocytes leads to various environmental assaults and also potential cellular injury that can cause cancer and aging of the skin⁴⁰⁻⁴². Melanin pigment produce by melanocytes plays very important role in skin. Melanin use to absorb ultraviolet light (UV) and thus prevent DNA damage⁴³. Melanin also works as a Scavenger of free radicals in human body^{44, 45}. Hence lack of epidermal melanin increase susceptibility to skin cancers and is an indicator of aging skin⁴⁶. In addition, loss of skin pigmentation leads to various social problems⁴⁷. In some case Vitiligo leads to initial lesions, however in most cases it progresses and can affect the entire body surface and the effects. Loss of ocular pigmentations results in photophobia and high blindness⁴⁸.



Physical effect:

Physical appearance caused by Vitiligo alters their lifestyle as they become less active in social activities. The onset of Vitiligo usually occurs from age 15 to 25, however it can present as early as infancy and as late as the sixth decade of life⁴⁹. Vitiligo initially develops on hands, wrist, body folds and orifices such as eyes, mouth and nose. Due to presence of Vitiligo on face, hands, arms, and feet many people experience emotional stress. Adolescents

are very concerned about their appearance and when they suffer they feel very embarrassed, ashamed, depressed or worried about how others will react.

Social effect:

People suffering from Vitiligo in India suffer more from social problem than other countries. Young women specially unmarried suffer from various problems like marriage because of arrange marriage in India. Thus young women with Vitiligo have little chance of getting married. If married women develop this problem she might get divorced.

Psychological effects:

Psychological effects are highly seen in Vitiligo patients. Patient develop negative feeling about this disease and experience it over a number of years lesions on faces of patient make them feel embarrassed like printability and depression are seen. Various studies done on patient showed prevalence of psychiatric morbidity(depressive episodes, adjustment disorders, anxiety) in 25% of them^{50,51}.

Occupational effects:

Patient suffering from Vitiligo may suffer from financial losses due to the hospital appointments for therapies. People suffering from these disorders have very less chances of clearing job interviews. Patient with face lesions have very restricted career choices. Not only patient but the parents whose children are suffering from Vitiligo also have to take leaves to take their children to hospital (3). Hence Vitiligo has occupational effects also.

Coping with Vitiligo:

The very vital step in coping with Vitiligo is to find a doctor who has knowledge about Vitiligo and also know the current treatment of it. A suitable doctor who can provide emotional support to patient is very important as depression automatically comes with it. Doctor works as a mental health professional and help in stabilizing the emotions. There are two basic reasons for which patients should be educated on Vitiligo and its treatments. First, patient has to participate in the decision in which treatment will best fit their lifestyle and second, a proactive approach will help patient to regain control on their life rather than allowing Vitiligo to make the rules.

Another most important step in coping Vitiligo is establishing support with family and friend and talking with others who have Vitiligo. International Vitiligo support provides current information about Vitiligo, treatments and researches. It also provide real time networking with others who have been exactly where you are, feeling the way you feel.

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