What is Vitiligo?

Vitiligo is a common skin disease that affects the skin and mucous membranes (lips, genitals). Some studies have shown that up to 2 % of the population can be affected from this disease. Vitiligo is characterised by depigmented patches all over the body and has an average age of onset of 20 years. It can however present at any age and in most cases be progressive.

The reason for its appearance is very complex and based mainly on theories. In brief, an insult to the colour producing cells of the skin (melanocytes), lead to their destruction and thus appearance of depigmented patches on the skin. There are several reasons put forward and the most common ones are listed in the table below:

Autoimmune	Antibodies produced by the body, cause destruction of the melanocytes quite similar to other autoimmune diseases, e.g. thyroid disease.
Melanocyte	The colour producing cells have a structural defect which leads to their early death, hence the patches
Free radicals	Oxidative stress from the accumulation of free radicals can lead to the destruction of the melanocytes
Nerves	The nerve fibres in the skin may be sending abnormal signals that cause destruction of the pigment producing cells

Vitiligo most commonly affects the hands, forearm and face. The mucous membranes including the lips, genitals and gingiva can also be involved. In some areas the hairs become grey, which points to a poor prognosis.

There are different types of Vitiligo based on the different shades of discoloration. However an easier working classification remains the localised type, generalised or universal disease.

1. The localised types are usually a single patch covering a small area of the skin. It can be distributed along the area supplied by a particular nerve (also called a dermatome). This type of Vitiligo tends to stay stable and can be treated by surgical options.
2. Generalised Vitiligo is much more common. It affects various areas of the body and commonly involves the fingers, lips, face and eyelids. Rarely, this variety is associated with autoimmune disease like Pernicious anaemia, Diabetes and Thyroid disease.
3. Universal Vitiligo affects most of the body surface area. In these cases, patients should consider bleaching the rest of the pigments to have a uniform body colour. The famous singer, Michael Jackson, suffered from this variety.

Treatment:

The latest international guidelines still advocates the early treatment with potent corticosteroids as the first choice. The best success rate is achieved when it is combined with narrowband UVB sessions and results can be expected within three months. Areas around the eyes can be treated with tacrolimus, due to its better safety profile. Other topical treatments that are commonly used as

alternatives are calcipotriene creams and Khellin cream. Calcipotriene is a vitamin D analogue that gives good results when combined with NUVB. However its use is limited due to costs and can be only in small body surface. Khellin cream is also effective and can be used in combination with corticosteroids and NUVB for maximum result.

The most frequently used light therapies are narrowband UVB (NUVB) and excimer laser. The NUVB is very safe and can be administered to the whole body. It is very affordable, safe and gives good result. Patients can be administered 200-300 sessions with little side-effects. In my clinic, a combination of NUVB, corticosteroids and Khellin cream achieves the best results for my patients. As for the excimer laser, it can treat only small surfaces and can be very costly.

Surgical procedures are gaining popularity in the treatment of localised, resistant but stable disease. Again most of them are combined with light therapy to stimulate the proliferation of the melanocyte. Some of the procedures are discussed below:

1. Punch grafting is the transfer if small punches of normal skin to a depigmented area. Approximately 30% of the depigmented area is grafted and then NUVB is used to stimulate the melanocytes. It can be performed on small surfaces and the skin can become pebbly.
2. Suction blister grafting is a technique, whereby only the superficial layer of normal skin is separated by a producing a blister. This skin is then grafted onto the abnormal area.
3. Needling is a procedure where small needles are used at the edges of depigmented patches to create bruises. These bruises push the normal melanocytes into the affected areas. Several sessions are needed and light therapy is used in between to stimulate the proliferation of the cells.
4. Smashed skin grafting is where superficial skin from a donor site is crushed into small pieces and grafted onto the Vitiligo patch. Good results can be obtained if the technique is well mastered.
5. Autologous melanocyte grafting is performed in specialised centres only. The colour producing cells are harvested, treated and cultured. This is injected into the depigmented region and the process can be repeated few times. It is very costly and advanced equipment and good laboratory technical staff is needed.

In some cases of progressive disease, the use of oral steroids can stop the disease. It is used in very low doses and can be used for a few months. However, it only stops the disease from getting worse and does not help in the repigmentation of already affected areas. At times, stable patches can be concealed with cosmetic camouflage and tattooing. The tattooing can achieve a near normal skin colour. However in cases of universal disease, the only option remaining will be bleaching the rest of the skin to achieve uniformity.

The psychological impact of this disease can be immense and patients can become withdrawn and depressed. Thus early treatment with a dermatologist with some psychological support can suppress the disease and help the person in leading a normal life.

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