VITILIGO SOCIETY OF SOUTH AFRICA

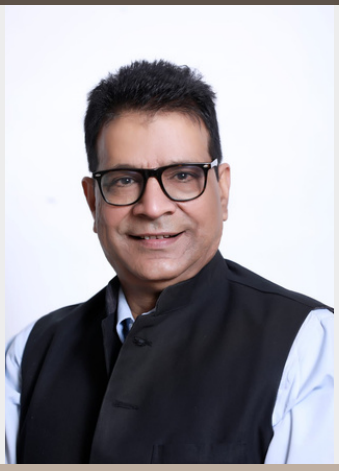
THE MELANOSITE

A NEWSLETTER OF THE VITILIGO SOCIETY OF SOUTH AFRICA COMPILED BY DR N RABOOBEE

CONGRESS ISSUE

AUGUST 2023

Dr Dilip Kachhawa
Jodpur
India



A focus on Dr Dilip Kachhawa

Dr Dilip Kachhawa is the invited Vitiligo Society guest for the 2023 DSSA congress. He is a Professor and Head of the Department of Dermatology, Venerology and Leprosy; at the Senior Medical College, Jodhpur in India. He is a WHO Fellow with a Diploma is STD/AIDS (Bangkok).

Dr Kachhawa has published more than 60 papers in reputed national and international medical journals, and delivered more than 100 guest lectures at various conferences, seminars and workshops on Vitiligo and Dermatosurgery. He is also the recipient of a number of prestigious awards, beginning with the International Society of Dermatology, New York in 2004; the Asian Pigment Cell Research Award and the WHO Fellowship Award - both in 2005; and culminating in the ITMP Mentorship Award by the American Society of Dermatosurgery in 2020.

His areas of interest are in Vitiligo surgery; Dermatosurgery and PRP.

01

Dr Kachhawa will address us on a new technique of non-cultured melanocyte grafting, which can be achieved without the use of trypsin, buffered saline, centrifuge and specialised laboratory equipment. This brings the vitiligo procedure within reach of every dermatologist

02

The procedure employed by Dr Kachhawa has widely become known as the Jodhpur technique as it was in this region that it was developed. In his second talk, Dr Kachhawa will take us through the use of this technique to repair pigment loss in perilesional areas after grafting

FDA approves first topical JAK inhibitor for vitiligo

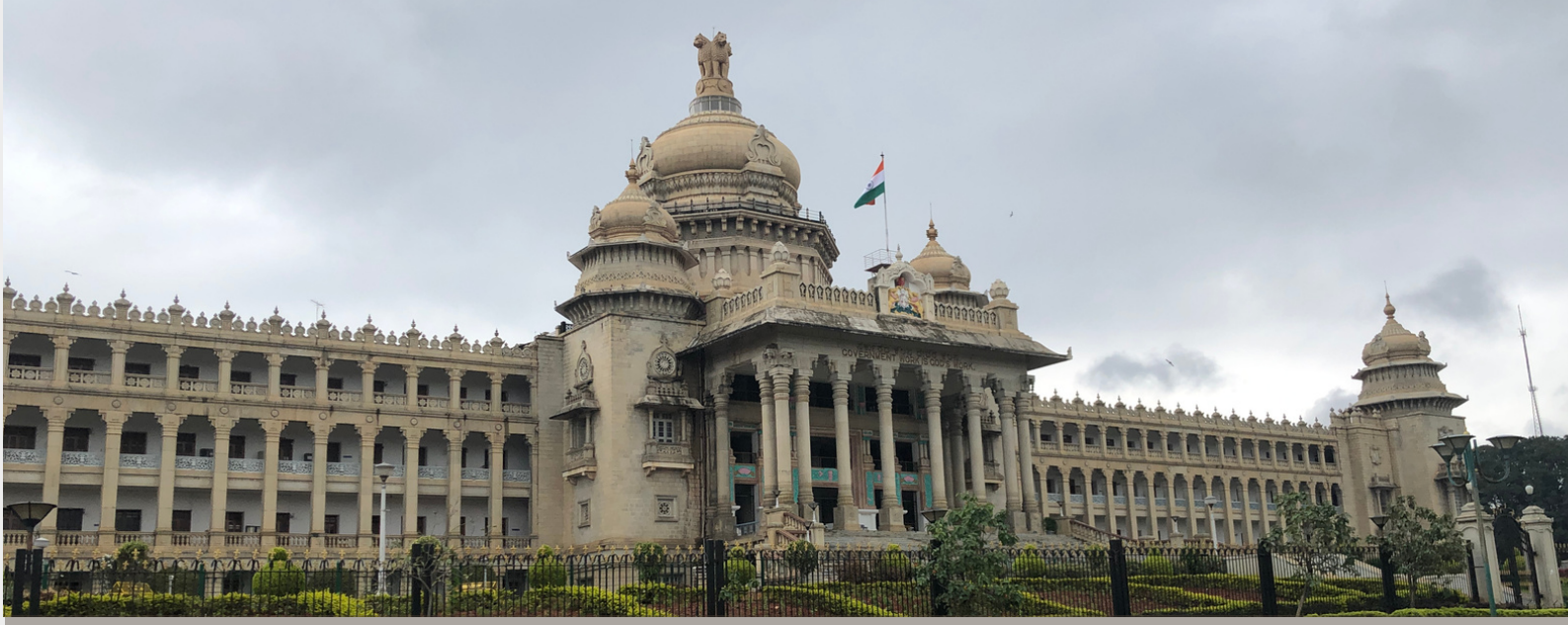
In groundbreaking news that brings renewed hope to the vitiligo community, the FDA has recently granted approval to ruxolitinib cream 1.5%, marking a significant milestone in the treatment of nonsegmental vitiligo. This approval makes ruxolitinib the first FDA-approved treatment for repigmentation in both adult and pediatric patients aged 12 years and older.

Ruxolitinib, a Janus kinase (JAK) inhibitor, works by inhibiting JAK1 and JAK2, which are crucial for the signaling of cytokines and growth factors that play essential roles in hematopoiesis and immune function. This innovative approach modulates gene transcription of cytokines, aiding repigmentation.

The FDA's decision is grounded in data from the phase 3 TRuE-V clinical trial, assessing the safety and efficacy of ruxolitinib in comparison to a non-medicated cream in over 600 patients aged 12 and above. The trial results were encouraging, revealing substantial improvements in repigmentation scores at both the 24-week primary analysis and a 52-week extension.

At the 24-week mark, about 30% of patients treated with ruxolitinib achieved a remarkable ≥75% improvement in facial repigmentation, compared to approximately 8% and 13% of patients using the non-medicated cream in separate study groups. Moreover, the percentage of patients achieving ≥90% improvement doubled from approximately 15% at week 24 to around 30% by week 52 under ruxolitinib treatment.

It's important to note that ruxolitinib's labeling includes a Boxed Warning for potential serious adverse effects and cautions against combining the treatment with certain classes of medications.



Report back from the Bangalore meeting

The Vitiligo International Symposium was held at the Taj Hotel in Bangalore from 9 to 11 December 2022. The meeting was open to dermatologists, physicians, residents, fellows, researchers, and physician assistants interested in vitiligo. Dr Noufal Raboobee represented South Africa at the meeting and presented two papers, one on new dermatoscopic features of needling and excimer light for vitiligo and the other on a sunscreen which filtered all light except 308nm, making it a useful treatment for vitiligo. Talks by other speakers are sumarised below:

A summary of the talk by Dr Madhulika Mhatre on the concept of STABILITY

How is stability defined clinically?

- No new vitiligo lesions
- No increase in the size of existing lesions
- No history of koeberisation eg following trauma.

Why is stability important?

If surgically treated areas of vitiligo are not stable at the time of surgery, they run the risk of losing their pigment after such surgery.

How long must the lesion be stable for before any surgical intervention?

According to the Vitiligo Global Issues Consensus Conference, the lesion to be treated must be stable for at least one year (lesional stability). There must also be no new lesions elsewhere on the body for at least 6 months (overall stability)

The clinical criteria for stability are subjective. Are there any objective criteria that can be used to determine stability?

Objective criteria include the dermoscopy, serial photography and possibly skin biopsy and biomarkers.

Performing a single punch graft and oberving for spread is called a mini graft test and was used to determine stability. Is this test still valid?

It was found that some patients who had a successful minigraft test actually went on to loose their pigment. The minigraft test is now considered to be an unreliable predictor and is no longer used to determine stability.

What are the dermtoscopic features that aid in assessing stability?

- sharp border,
- pigment network (absent or reticulate),
- perilesional pigmentation,
- satellite lesions and
- micro-Koebner phenomenon

Please give us examples of lesional, regional and overall stability.

OK, lets assume that the lesion to be grafted is the face. Lesional stability would mean no increase in the size of that lesion for one year.

Regional stabilty would mean no new lesions on the face for 1 year.

Overalll stabilty would mean no new lesions and no increase in the size of existing lesions anywhere else on the body eg the legs.

For which types of surgical treatments is stability important?

In general, all surgical treatments. Some of these include:

- Suction blister grafting,
- Punch grafting
- Non-cultured melanocyte grafting
- Split thickness skin grafting.

Targeted phototherapy for vitiligo

(Report of talk by Dr Imran Majid)

Lasers and lights are currently regarded as the most effective medical therapies for vitiligo. They also have the shortest duration of treatment to achieve clinical improvement, compared to any other modality of treatment.

- Targeted phototherapy includes Excimer laser
- Excimer light
- Targeted UVB (broadband/narrowband)

Advantages of targeted treatment

The advantages of targeted treatment over conventional whole bady narrow band UVB are:

- Exposure of involved areas only - minimising adverse effects on uninvolved skin
- Quick delivery of energy - only a few seconds.
- Shortens duration of treament sessions.
- Twice or three times weekly treatment
- Delivery of super-erythemogenic doses is possible as uninvolved skin is not exposed
- There is a convenient manoeuvrable hand piece
- Quick treatment response - the quickest compared to any other treatment.
- No post inflammatory hyperpigmentation of normal skin

The devices shown at the meeting by the presenter were the Exciplex (France) and the ExSys (GME, Germany)

Combination treatment was often with tacrolimus but also sometimes wth oralminipulse therapy.

Excimer laser and light now have proven efficacy in childhood vitiligo. Comparison studies have shown Excimer Light to be as effective as Excimer Laser in vitiligo.

Repigmentation is seen with just a few doses, typically within 5-6 treatments, and is often perifollicular as well as marginal. The head and neck respond the best. Acral areas respond late but of all medical treatments, excimer is problable the best repigmenting treatment for acral lesions. perianal areas, eyelids and other sensitive areas can be treated safely.

Side efects are not common and may include erythema, a burning sensation and hyperpigmentation, especially perilesionally because of the varying shapes of the lesions. Blistering is a rare phenomenon.

Treatment may be administered once or twice a week. It has been shown that both regimes produce identical results, except that the total number of treatments required remain constant - eg. once a week takes twice a long to achieve the same response.

Excimer light has been used successfully after grafting procedures.

In the treatment of segmental vitiligo, early treatment is vital. Treatment within 6 months of onset results in nearly 100% repigmentaion in the authors experience.

Excimer light and laser are used successfully on the genital area, unlike PUVA therapy. This includes the vulva and scrotal skin.

Targeted UVB treatment is available as broad band UVB, narrow band UVB combination of both. The device used was the Levia (USA)

Therapeutic pearls from the VIS meeting

01 Oral minipulse

Oral minipulse using Dexamethasone is used to stabilise vitiligo. The traditional dose is 2.5mg on 2 consecutive days a week for 4 months.

02 Oral minocycline

Oral minocycline 100mg daily was shown to arrest progression of vitiligo in 29 out of 32 patients. In 10 patients, depigmentation was stopped in as little as 4 weeks. Minocycline is a potential therapy to arrest disease activity.

03 Oral immunosuppressives

The following immunosuppressive agents have been used successfully to either achieve stability or repigmentation or both.

- Azathioprine. 50mg bd x 6/12
- Cyclosporine. 3mg/kg x 12 weeks
- Mycophenolate mofetil 1g bd x 180 days

04 Depigmentation

Depigmentation of the entire body may be an option for patients with extensive vitiligo. Three modalities are in use to achieve depigmentation.

- Monobenzyl ether of hydroquinone.
- Liquid nitrogen cyrotherapy
- Q-switched NdYAG laser

Combination Treatments in Vitiligo

A report of a talk by Dr T Passeron

Narrow band UVB and oral minipulse

Single arm trial of 0.5mg/kg prednisonone (dosed on 2 consecutive days per week) in combination with NBUVB > 3/12.
100% showed progression arrest within 12 weeks. 40.6% achieved >50% repigmentaion
(BJD 2019; 180:193-194)

Phototherapy and topical steroids

- **Topical steroids and UVA**

Prospective, randomized, controlled, left-right comparison study
Combination of UVA and Fluticasone propionate was better than UVA or topical steroid alone. (Arch Dermatol 1999;135:1061-6)

- **Topical steroids and UVB**

Addition of class 3 topical steroids with 308nm excimer laser increases its efficiency for treating vitiligo
)J Am Acad Dermatol 2016;74:907-15)

Phototherapy with Tacrolimus 0.1%

Yields better results that either one alone. Also, the combination was successful in achieving re-pigmentation in difficult to areas like the knees and elbows. The face responds even faster with the combination.

Combination of surgical therapies and phototherapy

- In 1983, Bonarfe et al reported benefit from Skin graft followed by PUVA. Since then, many studies showing benefits of the combination.
  - Phototherapy was added 3-4 weeks after surgical procedure.
- Transplanted epidermal cell suspensions followed by NBUVB or PUVA is superior to phototherapy alone for repigmentation of vitiligo

(Dermalogica 1983;166: 113-6
(Arch Dermatol.2004;140:1203-8)

Combination of surgical therapies and corticosteroids

Topical steroids
Prospective study of 50 vitiligo patients
Combination of punch grafting with topical steroids (fluocinonole acetonide 0.1% as effective as punch grafting followed by PUVA
Low doses of oral steroids might be beneficial in addition to surgical procedures
(Dermatol Surg 2004;30:49-53
Dermatol Surg 2006;32:536-41
Dermatol Surg 2007;33:1002-3)

Ablative laser and UV

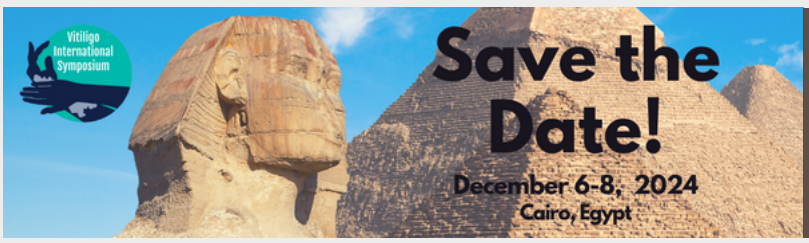
Prospective randomized intra-individual comparative study involving 10 patients, comparing UVB alone vs UVB + fractional CO2 laser (2 sessions at 2 month intervals). Evaluation was 2 months after the end of treatment. Repigmentation was greater with UVB + CO2 laser and showed good tolerance. Fractional CO2 laser plus UVB was subsequently reported by several groups thereafter.
(BJD 2011
Laser Surg Med 2014; 46:443-8
J Eur Acad Dermatol Venereol 2022;36:779-789)

Afamelanotide plus UVB

Afamelanotide is an MC1R agonist. In a prospective randomized study in skin types III-VI, Patients received NBUVB (n=27) compared to NBUVB+Afamelanotide (n=26). Combination fared much better. One of the side effects was hyperpigmentation on non-vitiligo skin (7%)
(JAMA Dermaol 2015;151:42-50)

Ruxolitinib + NBUVB

19 patients in an open label part of a phase 2 study were given additional UVB after receiving Ruxolitinib alone for 12 weeks. There was improvement after additional of UVB. This would need larger studies to confirm
(J invest Dermatol 2022;142:3352-3355



World Vitiligo Day

On 26 June 2023, to commemorate World Vitiligo Day. Dr Raboobee addressed the audience of Al Ansaar Radio for 2 hours. Latest treatments were discussed, advise was given and support was offered. In June 2022, Dr Suretha Kannenberg arranged a support group meeting in Cape Town.

World Vitiligo Day is on 25 January 2024. A virtual meeting is being planned to commerate this event.