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Comparative Study on Management of Vitiligo with Psoralen plus Steroid (Oxabet Formula) Alone VS Psoralen Formula plus Narrow Band of Ultraviolet B 311 nm in Khartoum Teaching Hospital of Dermatology and Venereology (KTHDV)

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Abstract

A comparative study and management has been conducted in (KTHDV). For some patients who attend the out patients clinic concern on treatment of the vitiligo with a new formula (Oxabet) alone VS Oxabet (oxpsolaren plus betamethasone) formula plus NB. UVB311 is during a period from (Jan 2011-Jan 2013). The study sample includes different age groups of both sexes. The study revealed that the formula alone gives good results. The localized vitiligo has a good response to the formula than generalized one. The early lesions have good responses than the old ones. The continuations of applying the treatment and the follow up of the patients enhance the efficacy of the treatment.

Keywords

Vitiligo, Oxabet Formula, L.V. (Localize Vitiligo), G.V. (Generalize Vitiligo), Leukoderma, Psoralen, NB UVB 311nm, PUVA

1. Introduction

Vitiligo is specific common, and often is a heritable or acquired disorder of the skin and mucous membranes,

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characterized by well circumscribed milky white cutanous macules and patches devoid of identifiable melenocytes [1]-[3]. The likely incidence is between 1% - 2% [4]-[6]. All races are affected. Both sexes are affected equally [7] [8]. Vitiligo may develop at any age, and the average age of onset is 20 years [9]-[11]. Extensive trials of treatment have been done, which are rarely successful [12]-[14].

Clinical types:

1) Localized:
a) Focal vitiligo
b) Segmental vitiligo [15]-[17]
2) Generalized:
a) Vulgaris vitiligo
b) Lip-tip vitiligo
c) Arcofacial vitiligo
d) Universal vitiligo [18]-[19]

2. Psoralean Compounds

Tricyclic furocoumarin-like molecules found naturally in a variety of plants throughout the world and also produced synthetically [21] [22], radically increase the erythema response of skin to long-wave ultraviolet light (UVA) after either topical application or systemic administration [2]-[4] [23]-[25].

Types: 3-TMP, 5-MOP, 8-MOP yjey are used with phototherapy or heliotherapy or bulb [26] [27].

3. Management

Various options are available Topical phototherapy, Systemic therapy, Surgical, Depigmentation, Laser therapy (Excimer 308 nm) [28]-[30].

This study is conducted from a MD study: 8-MOP plus Betamethazone (Oxabet) topical alone or with UVB Narrow Band 311 nm [2]-[4] [31] [32].

4. Methodology

For the formula tests had been carried out on 20 volunteer patients. The study had been accomplished in Khartoum teaching hospital of dermatology and venereology (KTHTV).

The study was done during a period of three months by evaluation the treatment of vitiligo with psoralen plus steroid alone and psoralen plus steroid with N.B UVB311 nm.

The patients were selected among the patients revising the outpatients clinic in Khartoum hospital of dermatology.

The number for sampling were (100) patients.

The patients had been requested to sign a consent paper.

The patients had been divided in two groups, a psoralen plus steroid and B psoralen plus steroid plus NB UVB311 nm.

The result had been tabulated, analyzed and discussed according to the study.

Lastly the conclusion and recommendation had been added

The drug was composed of 8 methoxalen powder 0.3 g in 20 g betamethazone.

Both drugs were marketed in the Sudan, their effect in vitiligo is summative *i.e.* they increase the devision of melanocytes and enhance the number of melanocytes in leukodermic area, and increase synthesis of the melanin (melanogenesis). The steroid therapy acts against autoantibodies of melanocytes (immunomodulators). The treatment name we suggest for the formula is (Oxabet).

5. Results

38 of the adult patients had localized vitiligo (L.V.) and were treated with formula as group A, who gave results as follows:

35 of patients had complete healing and 3 of them had marked improvement. (See **Figures 1-13**).

35 of the adult patients had generalized vitiligo (G.V.) who were treated with formula as group B and gave results as follows:

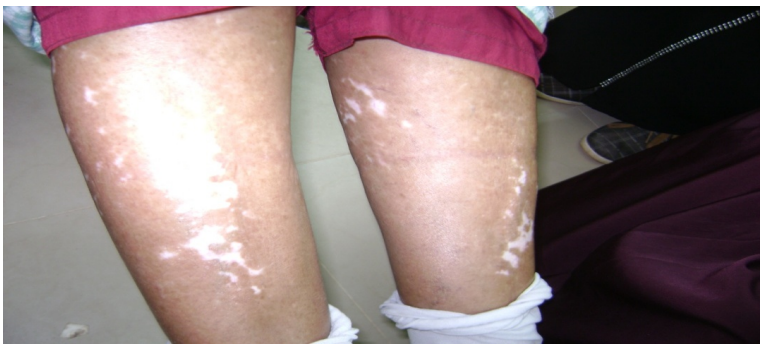

Figure 1. Lower limbs before treatment with Oxabet formula plus UVB NB 311 nm.

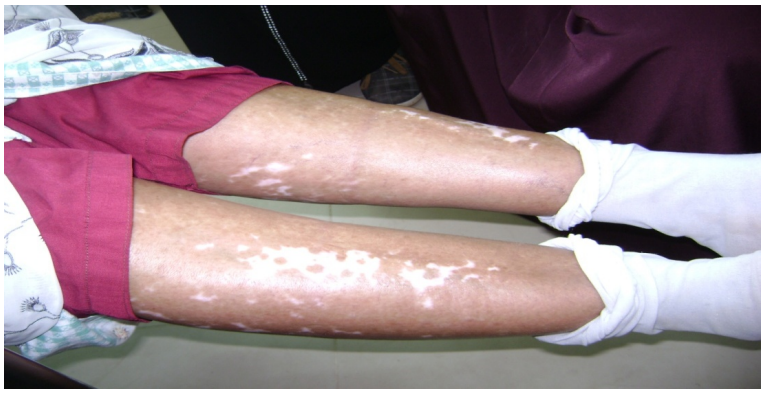

Figure 2. Lower limbs before treatment with Oxabet formula plus UVB NB 311 nm.

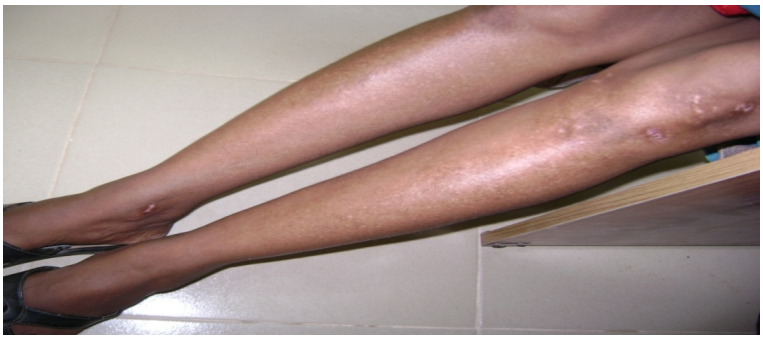

Figure 3. Lower limbs after three months of treatment with Oxabet formula plus UVB NB 311 nm had completely healing.

20 of them had complete healing, and 15 of them had good improvement (see **Figures 14-18**)).

The children treated with formula as group A and gave results as follows:

20 of patients had complete healing, 5 patients had good results and 2 patients had been resistance to the treatment. The (L.V.) patients gave good results rather than the (G.V.) (See **Figure 19** and **Figure 20**).

M.B. all patients are have no associated problems.

Patient not responding to treatment with a formula should anxiety.

Although the results are promising, yet we cannot guaranty to prevent the recurrence.

The lesions need 2 - 3 moths to heal.

Children have better results than adults.

The drug can cause contact eczema noticed in three children and two adults.

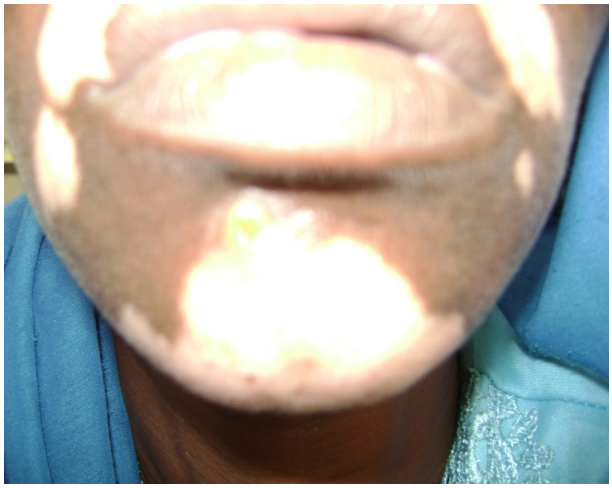

Figure 4. A child group A before treatment with Oxabet formula plus UVB NB 311 nm (acral lesion).

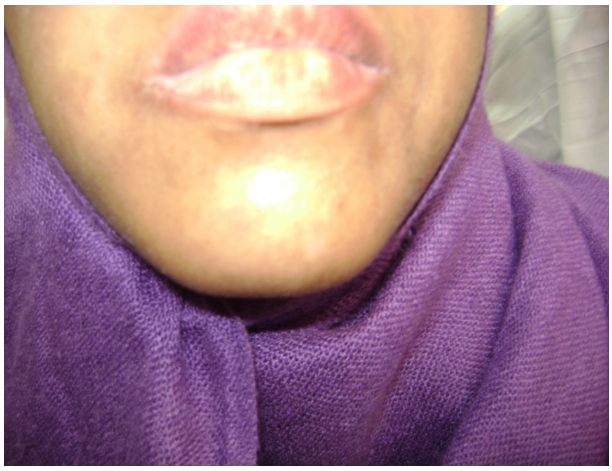

Figure 5. A child group A after three months of treatment with Oxabet formula plus UVB NB 311 nm had improvement.

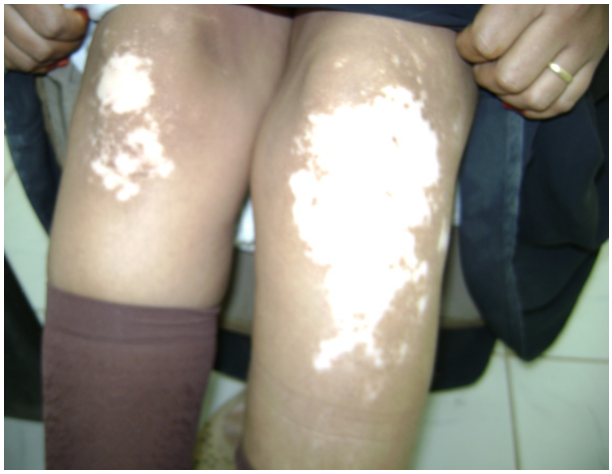

Figure 6. Adult female group A before treatment with Oxabet formula.

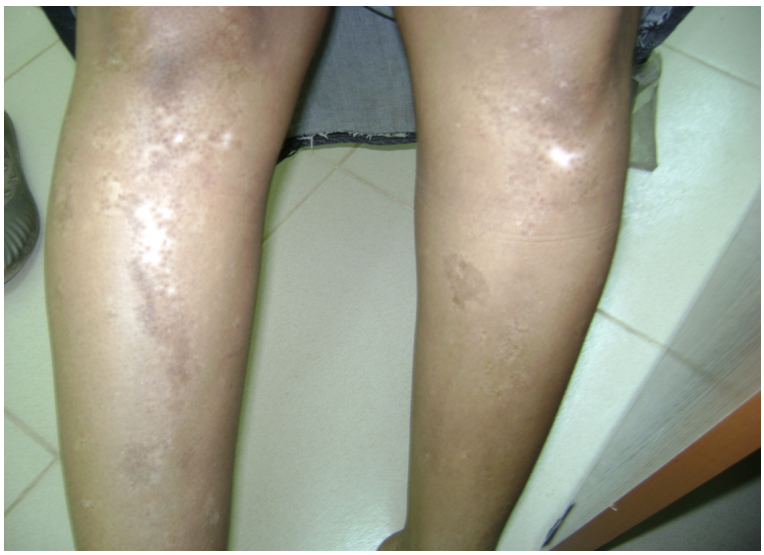

Figure 7. adult female group A after three months of treatment with Oxabet formula had completely healing.

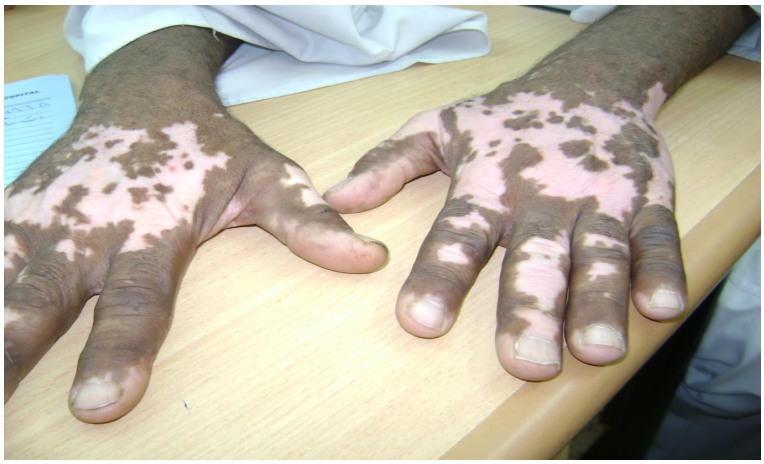

Figure 8. Acral vitiligo, adult male group A before treatment with Oxabet formula.

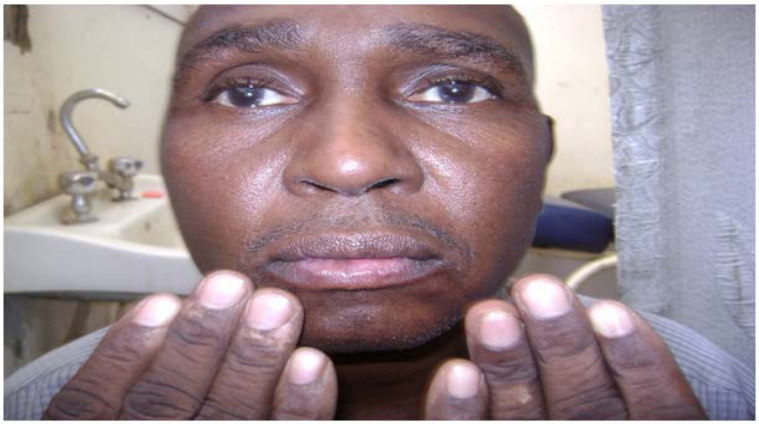

Figure 9. Acral vitiligo, adult male group A after three months of treatment with Oxabet formula had completely healing.

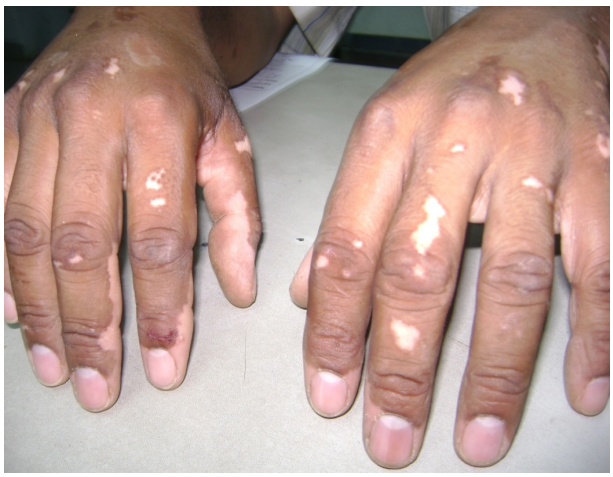

Figure 10. Acral Vitiligo, adult male group A before treatment with Oxabet formula.

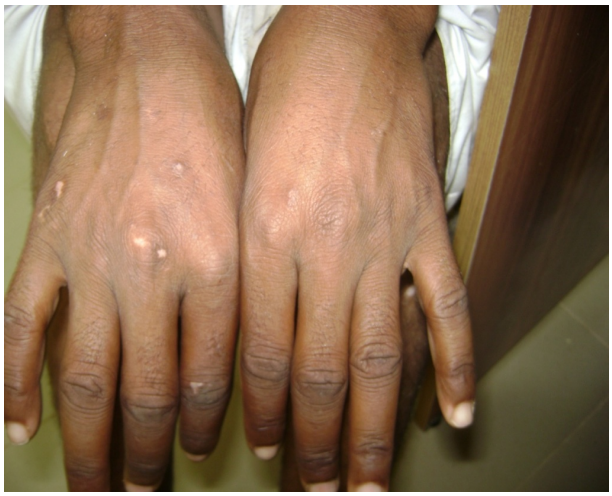

Figure 11. Acral Vitiligo, adult male group A after three months of treatment with Oxabet formula had complete healing.

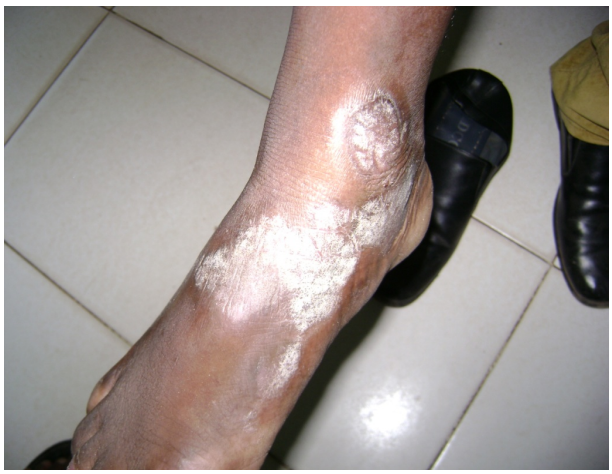

Figure 12. Acral vitiligo partially responding to Oxabet theraby.

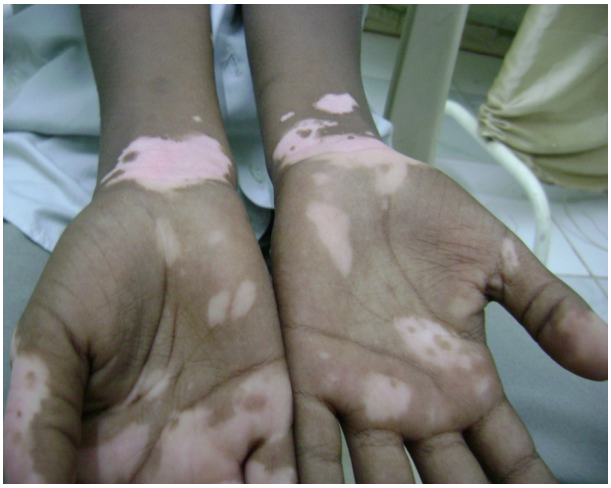

Figure 13. Acral vitiligo partially repigmented with Oxabet and UVB.

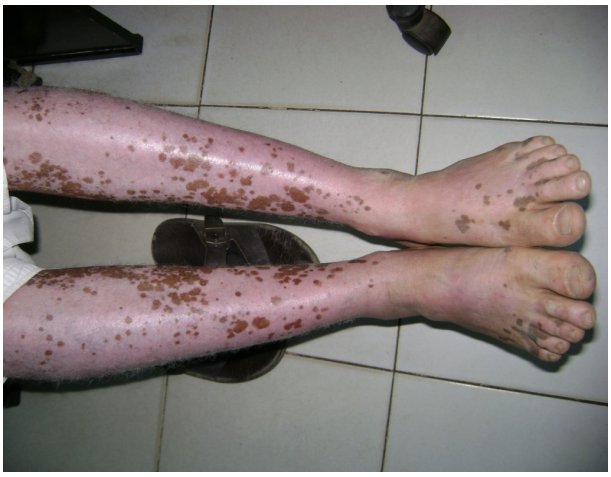

Figure 14. Acral vitiligo treated with Oxabet and UVB. Improvement in the legs but the feet are resistant to treatment.

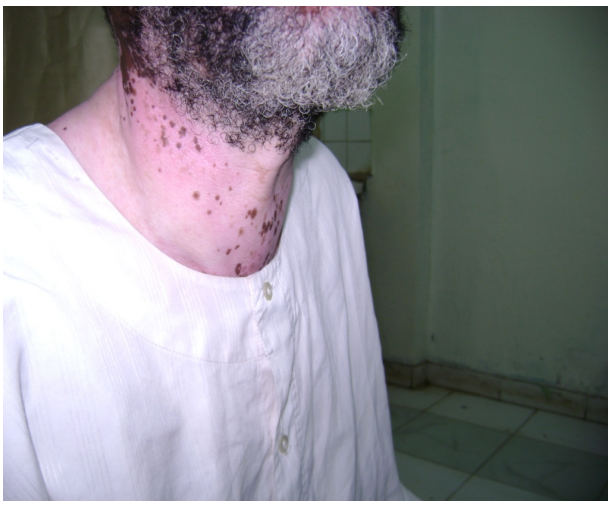

Figure 15. Slow response to treatment.

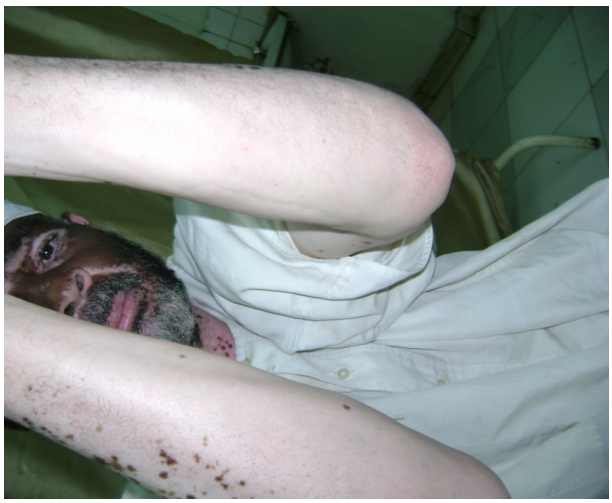

Figure 16. Generalised vitiligo before treatment.

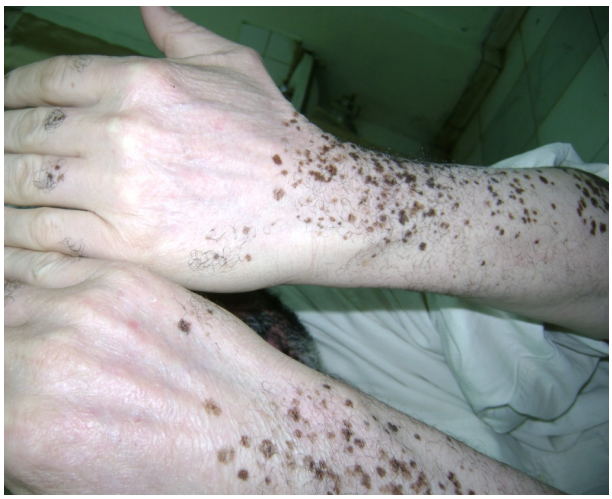

Figure 17. Generalised vitiligo after one month with Oxabet treatment.

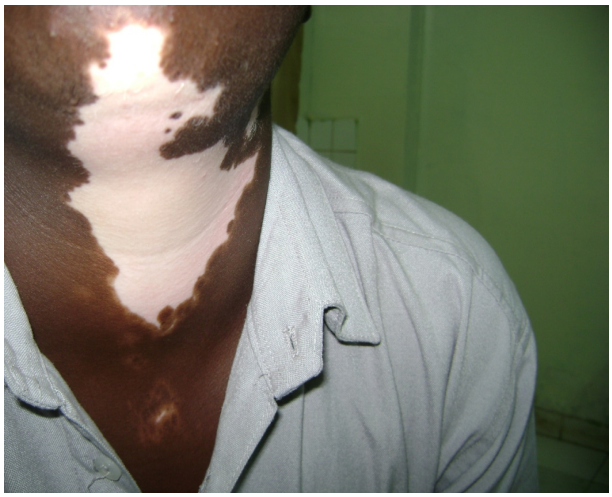

Figure 18. Focal vitiligo resistant to treatment with Oxabet.

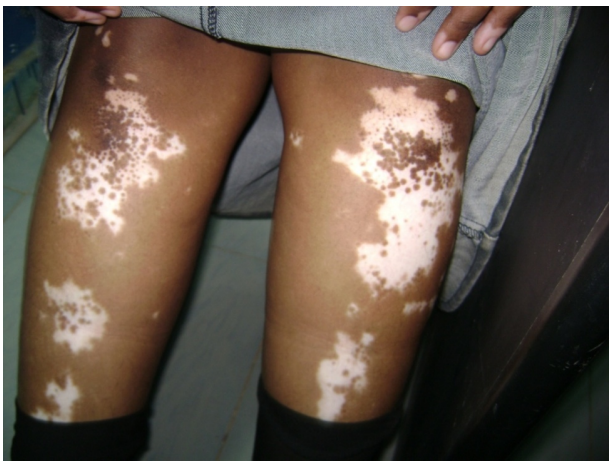

Figure 19. Adult female group A before treatment with Oxabet formula.

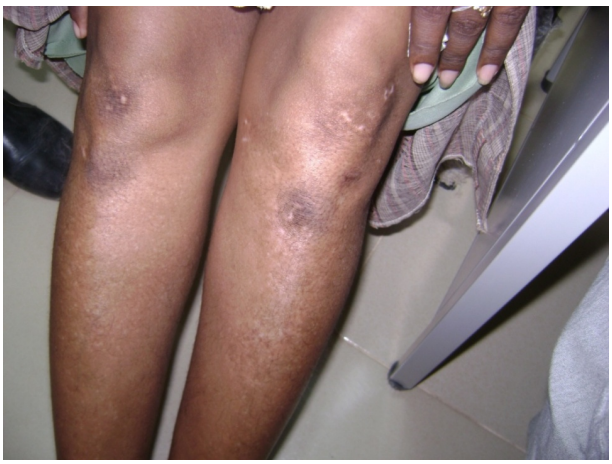

Figure 20. Adult female group A after three months of treatment with Oxabet formula had complete healing.

Acral vitiligo is difficult to heal.

6. Discussions

This study is a pilot one so far no recorded formula or study in a literature is found.

The formula gave a good result in the treatment of the (L. V.) than the G. V.

The children gave good results than the adult. The formula with combination of NB. UVB311 used in the treatment of G. V. and gave less degree than the formula alone.

7. Conclusions

The formula has a good promise for a future of treatment of vitiligo. It gives good results in shorter times around 3 months. It has an affordable price. It is easy to prepare apply with less side effect. The formula of Oxabet is stable up to six months at room temperature, but we prefer not to use it beyond three months.

As far as I know, there is no similar study in the literature, so it is considered as a pilot study.

The idea for the formula has been inspired from personal experience in dermatology. That is to say, both drugs are prescribed to treat vitiligo through:

a) Helping in division of melanocytes
b) Assisting in melanogensis

c) Transferring of melanin
d) Immunomodulators

So the reaction 8s is additive and summative.

Recommendations

The formula initially should be kept at 8 degree ˚C shouldn't be used after 3 months until the preserving time is reported. The patients should be followed up for recurrent or permanent healing. If the recurrent occurs the patients should repeat a fresh sample of drug.

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