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"A RANDOMIZED COMPARATIVE CLINICAL STUDY TO ASSESS THE EFFICACY OF *ARAGVADHA TAILA* OVER *DURVADYA TAILA* ALONG WITH *VIDANGADI CHURNA* IN THE MANAGEMENT OF *VICHARCHIKA*."

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Abstract

Background: *Vicharchika* is a type of *Kshudrakushtha* which is found widely. Patients belonging to all the socioeconomic classes of the society are seen suffering from this disease.*Vicharchika* is characterized by *Kandu, pidika, shyava, bahusrava, ruksha, raji, ruja*. *Vicharchika* is often correlated to Eczema based on the clinical symptoms.In modern the term eczema refers to inflammation of the skin vesicles and oozing in the acute stage, scaling and crusting in the sub-acute stage and hyperpigmentation and thickening of the skin in the chronic stage. There is no satisfactory treatment in contemporary system of medicine. **Materials and Methods:** A total of 40 Patients were selected from OPD and IPD Department of *Kayachikitsa*, BLDEA'S AVS AMV Hospital Vijayapur after fulfilling inclusion and exclusion criteria. They were randomly divided into 2 groups of 20 each, Group A (*Aragvadha Taila Along with vidangadhi churna*) & Group B (*Durvadhya taila along with (vidangadhi churna*). Assessment of results was done by considering the base line data of subjective & objective parameters; before, during and after treatment. **Results:** In group A good response 20%, moderate response 45% and mild response 35% of patients. In group B good response45%, moderate response 35% and mild response 20%. **Conclusion:** The study revealed that, both the groups were effective in the management of *vicharchika* but Durvadhya taila along with vidangadhi churna is more effective than Aragvadha taila along with vidangadhi churna.

Keywords: *Vicharchika*, eczema, *aragvadha taila, durvadhya taila, vidangadhi churna.*

Introduction:

The human skin is the outer covering of the body and is the largest organ of the integumentary system. It reflects physical, mental and physiological state of an individual. Skin not only covers and protects the body but also performs some function of excretion and metabolism. Variations in the environmental stimuli & natural ability of body to deal with these factors result in spontaneous remissions & relapses. Interaction with these factors results in specific reaction pattern producing characteristic skin lesion in different parts of the body. Large community prevalence studies have demonstrated that between 20-30% of the population have various skin problems requiring attention.

Though the Vicharchika is not a life threatening, they make the patient worried due to its appearance. Severe itching or burning or oozing disturbs his routine activities and its nature susceptible to be chronic. Even though many skin diseases may be cured yet the relapsing nature of few diseases (eczema, psoriasis, tinea, seborric dermatitis etc.) makes it much harassment for patient and troublesome for physician too[1].

One of such disease is *Kushtha*. It is one of the '*Mahagada'* defined by Ayurveda which is caused due to vitiation of 7 body elements i.e. three *doshas,* four *dushyas* viz. (*Twak), Rakta, Mamsa* and *Laseeka*. Vicharchika is categorized in different ways i.e. *Kshudra kushta, kshudra roga* and *sadhya kushta*. All *kushtas* are having *tridoshaja* origin, hence *vicharchika* can be explained in similar manner i.e. *Kapha* is responsible for *kandu, pitta* is responsible for *srava* and *shyava* indicates the presence of *vata*[2].

As per the symptomatology and pathogenesis, *vicharchika* has been directly correlated with eczema (dermatitis) in modern science, i.e. *Sakandu* (excessive itching), *pidaka* (papules, vesicles, pustules), *shyava* (erythema with blackish discoloration), *bahusrava* (profuse discharge, oozing), *raji* (thickening, lichenification of skin), *ruja* (pain), *ruksha* (dry lesion)[3,4].

The present study has been carried out in 2 parts; Conceptual Study and Clinical Study. Conceptual study includes disease review and drug review. Derivation of Vicharchika is appear first in disease review fallowed with *Nidana, Purvarupa, Rupa, Samprapti, Chikitsa, Pathya Apathya, Sadhya Asadhyata* and concept of *Satmya Viruddha Nimittaja Vyadhi* and Chikitsa and comparison of Vicharchika with Eczema.

Drug review includes ingredients, dosage and method of preparation of *Aragwadha Taila, Durvadhya Taila and Vidangadi Churna*. For clinical study 40 diagnosed case of Vicharchika were taken. Each patient was given with *Vidangadi churna* 5 g with *madhu* as *anupana* after food and *Aragwadha taila* for external application for quantity sufficient both morning and night for 6 weeks. Patients were assessed in terms of *pratyatma lakshana* of *Vicharchika* and EASI score board.

AIM: To evaluate the efficacy of *Aragvadha Taila* over *Durvadya Taila* along with *Vidangadi churna* in the management of *vicharchika.*

OBJECTIVES:

- To evaluate the efficacy of *Aragvadha Taila* along with *Vidangadi Churna* in *Vicharchika.*

- To validate the efficacy of *Durvadya Taila* along with *Vidangadi Churna* in *Vicharchika*.
- To compare the efficacy of *Aragvadha Taila* over *Durvadya Taila* along with *Vidangadi Churna* in *Vicharchika.*

Material and methods

The study got approved by Institutional Ethics Committee (no.355/2022-23, dated: October 15,2022) and trial was registered in Clinical Trial Registry of India (CTRI/2023/01/049145) Subjects visiting outpatient department of Kayachikitsa of BLDEA'S AVS Ayurveda Mahavidyalaya, Hospital and Research Center, Vijayapura were thoroughly examined for clinical signs and symptoms of vicharchika. Subjects were enrolled for the study considering the criteria of inclusion, exclusion and after getting the consent. The registered subjects were allocated into two groups, using the randomization. Argvadha taila external application twice day along with vidangadhi churna in the dose of 5gm twice a day in trial group A and Durvadhya taila external application twice day along with vidangadhi churna in the dose of 5gm twice a day in trial group B for the age group of 20-70 years respectively was given for a period of 6 weeks. After completion of the clinical trial, the patients were followed up for further 2 weeks.

Diagnostic criteria

Subject was diagnosed on the basis of Ayurvedic classical signs and symptoms of vicharchika. Subjects were also examined on the basis of specially prepared proforma.

INCLUSION CRITERIA:

- Subjects with the classical signs and symptoms of *Vicharchika kushta* like *Kandu*,*Pidaka*, *Shyava varna*, *Bahu srava*, *raji*, *ruja* and *rukshata*.
- Subjects of age between 20-70 years irrespective of gender, religion, occupation,economic status, food habits and chronicity were selected.

EXCLUSION CRITERIA:

- The subjects suffering from other severe skin diseases and systemic disorders.
- Pregnant women and lactating mother.

Criteria for assessment

Assessment was done by considering changes in the subjective as well as objective parameters before, during and after the treatment. Subjective parameters include kandu whereas objective parameters include pidika, shyava varna, bahusrava, ruja, raji, rukshata & EASI SCORE.

Statistical analysis

The data obtained were entered in a Microsoft Excel sheet, and statistical analysis was performed using statistical package for the social sciences (version 20). Results were presented as Mean+SD, counts, percentageand diagrams. Paired data were compared using Man-Whitney U test. P<0.05 was considered statistically significant.

Observations

A total 43 subjects were registered, with 3 being dropped out from the study, and total 40 subjects were being included in the study.Subjects were selected randomly and divided in two groups Group A and Group B, each group contains 20 subjects.

The Group A subjects given with Aragvadha taila along with vidangadhi churna and Group B subjects given with Durvadhya taila along with vidangadhi churna. The parameters were noted before,during and after treatment. Maximum number of subjects were in the age group of 20-60 years (35%), Male (75% & 80% in Group A and B respectively), Females (25% & 20% in Group A and B respectively), Lower Middle-class SES (60%& 80% in Group A and B respectively) and Gradual onset (75%& 85% in Group A and B respectively).

Results

Both the groups showed significant result in all the subjective and objective parameters but comparatively group B was more effective than group A from table no1 and table no.2. Overall response was better in Group B as compared to Group A from table no.3.

RESULTS

Table No.: - 01 Results of Subjective and objective Parameters in Group-A by Wilcoxon Rank Sum Test

Parameters	Mean		Diff	Mean Rank	z-value	P-value
	BT	AT				
Kandu	2.65	0.95	1.70	10	-3.9	<0.0001(S)
Pitika	0.75	0.20	0.55	4	-2.42	0.015(S)

Syava	2.55	1.80	0.75	8	-3.87	<0.0001(S)
Srava	0.60	0.20	0.40	4.0	-2.5	0.01(S)
Raji	0.60	0.40	0.20	2.50	-2.0	0.04(S)
Rukshatha	1.10	0.50	0.60	6.00	-3.21	0.001(S)
Erythema Head	0.10	0.10	0.0	0.0	**0.0**	1.0(NS)
Thickness Head	0.25	0.20	0.05	1.0	**-1.00**	0.317(NS)
Scratching Head	0.15	0.10	0.05	1.0	**-1.0**	0.317(NS)
Lichenification Head	0.05	0.05	0.0	0.0	**0.0**	1.0(NS)
Erythema Trunk	0.40	0.20	0.20	2.50	**-2.00**	0.04(S)
Thickness Trunk	0.15	0.15	0.0	0.0	**0.0**	1.0(NS)
Scratching Trunk	1.00	0.55	0.45	4.0	**-2.46**	0.014(S)
Lichenification Trunk	0.50	0.50	0.0	0.0	**0.0**	1.0(NS)
Erythema Lower Limb	0.40	0.20	0.20	3.10	**-1.08**	0.27(NS)
Thickness Lower Limb	0.35	0.20	0.15	2.0	**-1.7**	0.08(NS)
Scratching Lower Limb	1.50	0.80	0.70	5.50	**-2.88**	0.008(S)
Lichenification Lower Limb	0.30	0.20	0.10	1.50	**-1.41**	0.157(NS)
EASI	2.40	1.10	1.30	10.0	**-3.98**	<0.0001(S)

*** Ruja was not present in group A.**

***Erythema, Thickness, Scratching and Lichenification over Upper Limb were not present.**

Table No.: -02 Results of Subjective and objective Parameters in Group-B by Wilcoxon Rank Sum Test

Parameters	Mean		Diff	Mean Rank	z-value	P-value
	BT	AT				
Kandu	2.75	0.30	2.45	10.50	-4.02	<0.0001(HS)
Pitika	4.50	0.0	4.50	3.50	0.0	0.02(S)
Syava	1.90	1.10	0.80	7.50	-3.55	<0.0001(HS)
Srava	0.40	0.0	0.40	3.0	-2.07	0.03(S)
Raji	0.80	0.40	0.40	5.06	-2.31	0.02(S)
Rukshatha	1.15	0.10	1.05	7.50	-3.39	0.001(S)
Erythema Trunk	0.25	0.05	0.20	2.0	-1.6	0.102(NS)
Thickness Trunk	0.50	0.0	0.50	1.0	-1.0	0.317(NS)
Scratching Trunk	0.45	0.30	0.15	1.50	-1.3	0.180(NS)
Erythema Upper limb	0.10	0.05	0.02	1.0	-1.0	0.317(NS)
Thickness Upper Limb	0.30	0.20	0.10	1.50	-1.41	0.157(NS)
Scratching Upper Limb	0.40	0.20	0.20	2.0	-1.63	0.102(NS)
Erythema Lower Limb	0.50	0.20	0.30	2.50	-1.85	0.06(S)
Thickness Lower Limb	0.65	0.25	0.40	4.0	-2.50	0.01(S)
Scratching Lower Limb	1.25	0.45	0.80	6.77	-2.86	0.004(S)
Lichenification Lower Limb	0.25	0.25	0.0	0.0	0.00	1.0(NS)

Easi	2.25	0.35	1.90	10.5	-4.08	<0.0001(HS)

***Ruja was not present in group B.**

***Erythema, Thickness, Scratching, Lichenification over Head, Lichenification over trunk and Lichenification over Upper Limb were not present.**

Table no.03 OVERALL RESPONSE OF THE TREATMENT

Overall Response	Group A		Group B	
	No of patients	Percentage (%)	No of patients	Percentage (%)
Good Response >75%	4	20%	9	45%
Moderate Response (50<75%)	9	45%	7	35%
Mild Response (25%<50%)	7	35%	4	20%
No Response	0	0%	0	0%
Total no of patients	20		20	
Inference	Overall response was better in Group B as compared to Group A			

DISCUSSION:

Vicharchika is often correlated to Eczema based on the clinical symptoms.In modern the term eczema refers to inflammation of the skin vesicles and oozing in the acute stage, scaling and crusting in the sub-acute stage and hyperpigmentation accentuation of skin markings and thickening of the skin in the chronic stage[5]. Treated with application of Emollients, and oral Antihistamines, immunosuppression but they produce serious side effects like nephrotoxicity, osteoporosis and skin cancer[6]. So research scholars are focusing towards finding alternative medicines to get better results in treating this disease.

In present clinical study the incidence of *vicharchika* was found more in the age group of 50- 60 years i.e. 40%. Though Eczema can occur at any age but in the present study older age group were affected more. Because, skin becomes drier as we get older, this can lead to roughness, scaling and itchiness. In this clinical trial, subjects belonged to occupations such as Field worker 18(45%), others 10 (25%), House wife 07 (17.5%), student 05(12.5%). In agricultural work use of fertilizers may act as irritants for the skin, in auto drivers constant exposure to smoke and pollution, in barbers constant contact with different chemical

substances like hair dyes, hair sprays and hair products which contains irritant substances, in homemakers usage of detergents, soaps, household cleaners, in student eating of junk food and wrong daily routine, in teachers regular usage of chalk piece may act as skin irritant leading to manifestation of *vicharchika*. Out of 40 subjects, 28(70%) were belonging to lower middle class, 08(20%) were middle class, 04(10%) were from poor. Eczema is found to be more prevalent in lower middle class socioeconomic groups due to negligence in hygiene and nutrition. It was found that all patients were having *dwandwaja prakruti*, 55% patients had *kapha pittaja prakruti*. This suggesting the involvement of *kapha pittaja dosha* in etiopathogenesis of *vicharchika*. Both are *drava guna yukta doshas* and thus help in sustaining "*Kleda*". in both the groups may be because of Tridoshaghana, kandughna, Shoshan, Raktashodhaka, Deepana, Pachana properties of both group drugs helps in relieving symptoms of vicharchika.

Aragvadha is having *tikta madhura rasa, snigdha guna, sheeta virya* and *madhura vipaka shows tridoshhara, kushthghna, kandughna* actions.

Argavdha patra contains anthraquinone derivatives; anthraquinone is researched and proven for its Antifungal, Antibacterial[7] and Anti-itching properties. Which make it suitable to be used in the treatment of various skin ailments.

Sarshapa taila having *Katu Tikta rasa, Ushna virya, katu Vipaka, snigdha guna*[8]alleviates *kapha* and *Vata dosha* and acts as *kandughna, varnya, kushthaghana, krimighna, vranaropana*. Because of its *snigdha guna* helps in reduction of *ruksha guna* in *vicharchika*. Mustard oil contains allyl isothiocyanate and Glucosinolates that could be useful for reducing inflammation[9].

Durva having *kashaya, madhura rasa, laghu guna, sheeta virya, madhura vipaka* shows *kapha pitta hara,* and act as *kusthgna, kandughna, varnya* and *vranaropana*. It possesses wound healing[10], Anti-inflammatory[11], Anthelmintic[12] and Anti-microbial properties[13]. These activities of durva may help in reducing skin lesions.

Vidangadi Churna contains the ingredients like, *haritaki, bibhitaki, amalaki, pippali, vidanga. Vidanga* contains *katu kashaya rasa, laghu ruksha guna, ushna veerya, katuvipaka* and the properties like *krimighna* and *kushtagna* which acts on signs and symptoms of *vicharchika*. The chemical compositions like Embelin, christembine, vilangine has anthelminthic activity, antifungal[14], antimicrobial[15], antioxidant activity[16].

CONCLUSION:

Vicharchika is the disease affecting the individuals without any age limit.The victims of this disease are field workers, housewives, students, industrial workers and exposure to the irritant substances. The *aharaja viharaja nidanas* mentioned in the classics still hold true today, as the majority of patients in the study had habits such as consuming mixed diet and *viruddha ahara.* So, *Aragwadha taila* along with *vidangadi churna* and *Durvadya taila* along with *vidangadi churna* were selected to treat *vicharchika*. Both the groups have shown better result in improvement of subjective and objective parameters. After the follow up few patients got reoccurrence of symptoms due to intake of causative factors. Preventive aspect and patient's education

play an important role in the management of *vicharchika*. Guidelines about maintaining hygiene, following proper diet along with wearing loose cotton clothes, avoiding irritants and allergens are helpful for effective management. Among the 40 patients treated, all the patients responded well. So, it could be concluded that *aragvadha taila* and *durvadhya taila* along with *vidangadi churna* are effective in *vicharchika*.

REFERENCE:

1. Davidson's principles and practice of medicine Edited by Christopher Haslett and et al, 19th Edition, Reprint 2002, Toronto; Churchill Livingstone, Pp-1274, Page no. 1072.
2. Madhavanidana of shri madhavakara sanskrita text and madhukosha commentary with English transalation uttaraddha part -2 by Dr.P.Himasagara Chandra murthy Edition third: reprint-2013 Choukhambha Sanskrit Series chapter 49/22,page no-127.
3. Shastri Rajeshwar Dutta.vidyotini ed, Charak samhita chikitsa stana 7th chapter, 39-42 shloka, edition 1st 1962 Pub: Choukamba Baratiya academy, Varanasi, P-255.
4. K.R. Srikanthmurthy ed, sushruta samhita Vol-II Chikitsa stana, 9th chapter,6th shloka, ed 2nd 2005, Pub: Choukamba Orientalia Varanasi P-104.
5. API textbook of MEDICINE editor-in-chief YP Munjal volume first tenth edition :2015part 11 Dermatology page no.674.
6. Davidson's principles and practice of MEDICINE 23rd edition 2018. Page no 1244-1245 ,29 chapter.
7. Pavan Kumar Sangu Medicinal Properties of Aragvadha (Cassiafistula Linn.) International journal of Ayurvedic medicine, 2010, 1(3), 129.
8. Dr. Gyanendra Pandey, Dravyaguna Vijnana, Krishnadas Ayurveda Series -48 Materia Medica – Vegetable Drug Vol – 3 Choukhamba Krishnadasa Academy Varanasi-2005, Edition-Third 2005.Page No 415-424.
9. https://www.medicalnewstoday.com/articles/324686#:~:text=Mustard%20oil%20contains%20a%20compound, grow%20in%20a%20controlled%20setting (05/09/24, TIME: 10:30AM).
10. Dande P an han A. Evaluation of wound healing potential of Cynodondactylon. Asian J Pharm Clin Res 2012; 5(3): 161-164.
11. Garg VK and Paliwal SK. Anti-Inflammatory activity of aqueous extract of Cynodondactylon. Int J Pharmacol 2011; 7(3): 370-375.
12. Abhishek B, Anita T. Anthelmintic activity of Cynodon dactylon. J Pharmacog Phytochem 2012;1:1-3.
13. Suresh K, Deepa P, Harisaranraj R, Vaira Achudhan V. Antimicrobial and Phytochemical investigation of the leaves of Carica papaya L., Cynodon dactylon (L.) Pers., Euphorbia hirta L., Melia azedarach L. and Psidium guajava L. J Ethnobot 2008;12:1184-91.
14. Rani AS, Saritha K, Nagamani V, Sulakshana G. In vitro evaluation of antifungal activity of the seed extract of Embelia ribes. Indian journal of pharmaceutical sciences 2011;73(2):247.
15. Khan MA, Naidu MA, Akbar Z. In-vitro antimicrobial activity of fruits extract of Embelia ribes Burm.

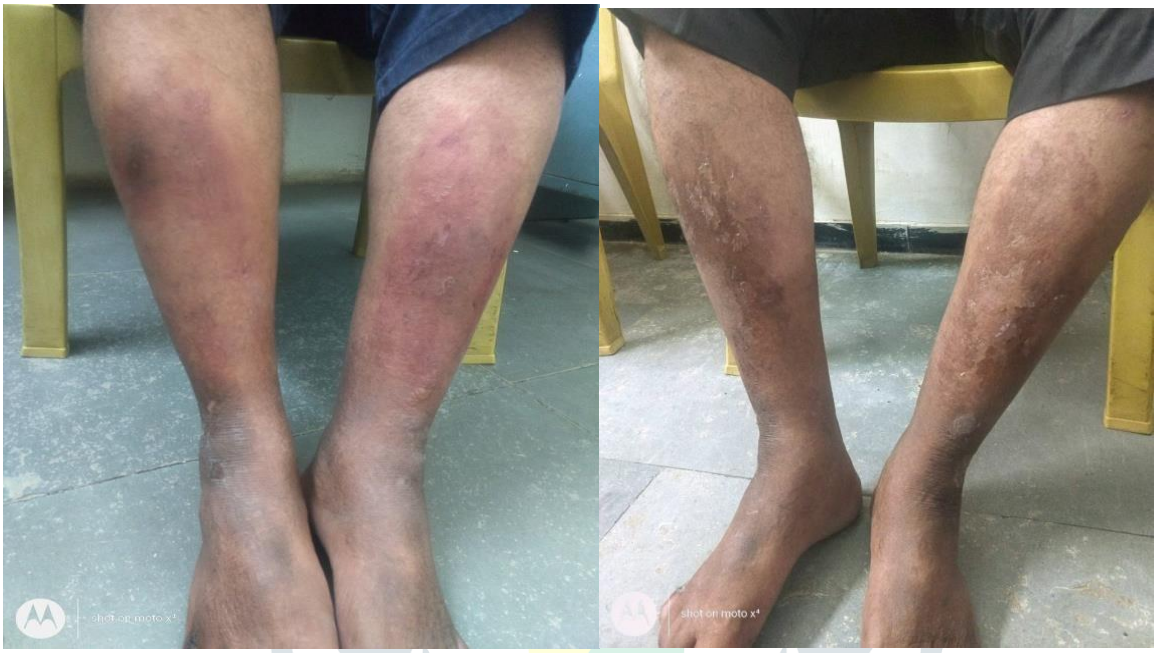
International Journal of Pharmaceutical & Biological Archives 2010;1(3):267- 270.

16. Nazam Ansari M, Bhandari U, Islam F, Tripathi CD. Evaluation of antioxidant and neuroprotective effect of ethanolic extract of Embelia ribes Burm in focal cerebral ischemia/reperfusion-induced oxidative stress in rats. Fundamental & clinical pharmacology.

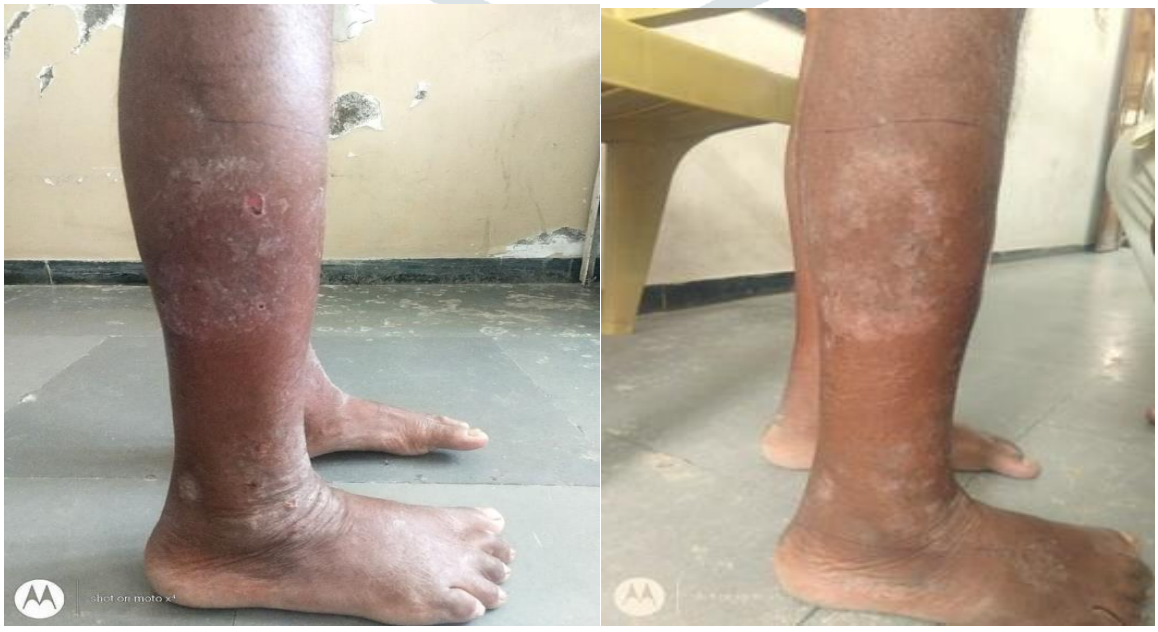
ANNEXURE

BEFORE AND AFTER TREATMENT:

IN GROUP A:



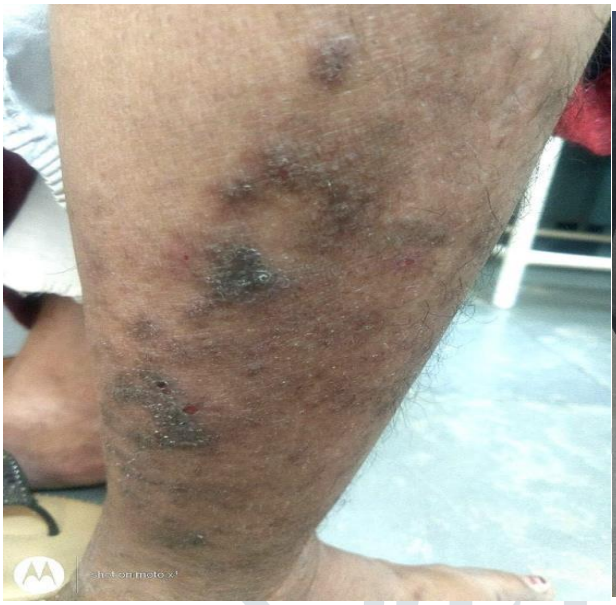
BEFORE **AFTER**

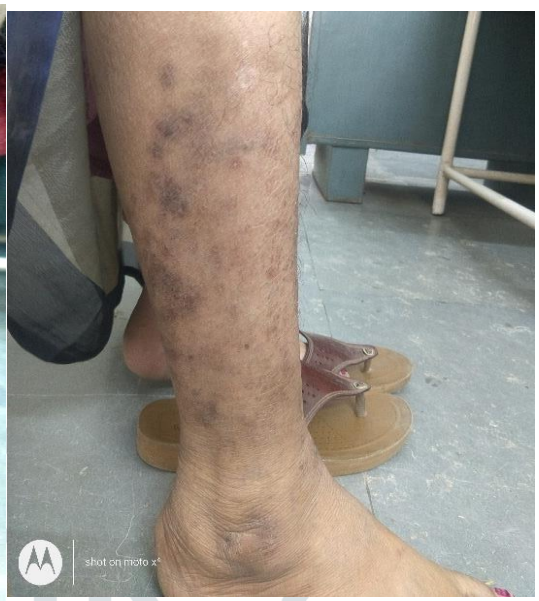


BEFORE **AFTER**

BEFORE AND AFTER TREATMENT:

IN GROUP B:





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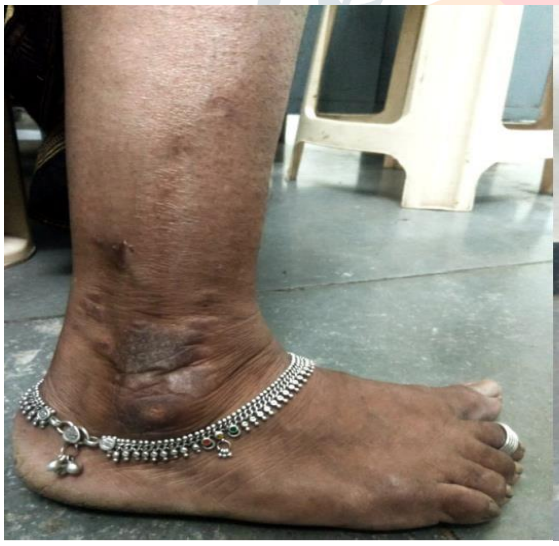

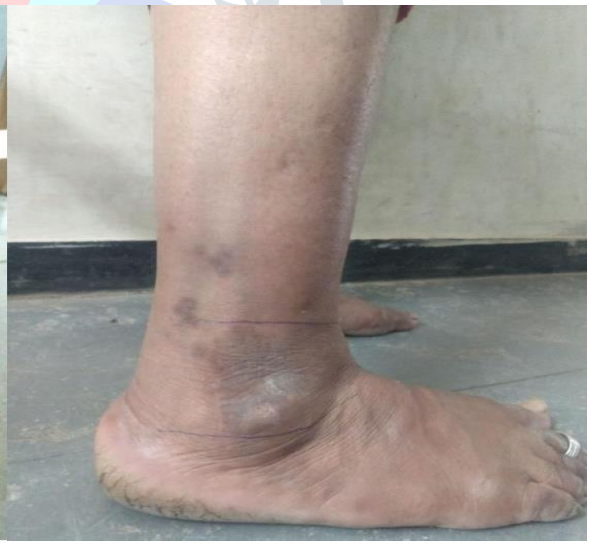

BEFORE **AFTER**