

A CLINICAL STUDY ON THE EFFECTIVENESS OF HOMOEOPATHIC MEDICINE IN THE TREATMENT OF PITYRIASIS ALBA IN PAEDIATRIC AGE GROUP

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Abstract : Pityriasis alba (PA) is a common, benign skin disorder consisting of characteristic round or oval hypo pigmented lesions with fine scales and most common skin disorder seen in Paediatric age group. Atopic dermatitis, dark skin phototype, and early age are the main risk factors for PA. Pityriasis alba is usually easy to diagnose based on the clinical appearance and distribution of skin lesions in a child or adolescent. Since the cause of the condition is unknown and have no infectious aetiology it takes months to years to resolve itself, but Homoeopathy has a scope in decreasing the duration to resolve and also preventing its recurrence. This clinical study aims at evaluating the potential of Homoeopathy in the treatment of this illness with the help of Modified Naranjo Criteria for Homeopathy (MONARCH) , a reliable instrument for evaluating the relationship between a homeopathic remedy and clinical result.

KEYWORDS:- Pityriasis alba , Homoeopathy, Modified Naranjo scale, MONARCH criteria

INTRODUCTION

Pityriasis alba (PA) is a common, benign skin disorder consisting of characteristic round or oval hypo pigmented lesions with fine scales and occurring predominantly in children and adolescents^[1]. The term PA is derived from the Greek word pityron signifying bran or bran like which means scaling and flaking and Latin word albus meaning white .This falls under the category of hypomelanosis diseases.^[2]

PA is referred to as pityriasis streptogenes, pityriasis simplex faciei, pseudoleucoderma atopicum, erythema streptogenes, impetigo furfuracea, impetigo pityroides, impetigo sicca, pityriasis maculata, and Kleienflechte^{[3][4]}

The major PA risk factors are young age, dark skin photo type, and Atopic dermatitis. Long, frequent baths, mechanical exfoliation, and other similar treatments may reduce the level of defensins and skin-protecting factors, contributing to the development of lesions.^[5]

There are three clinical variants of PA: classic (CPA), extensive (EPA), and pigmented (PPA). CPA is the most common form of disease and affects primary school children of both sexes^[6]. In CPA the areas of depigmentation with scaling margins are typically found around the lips, on the chin and cheeks. Plaques are well defined and numerous and have a diameter ranging from 0.5 to 2 cm. Two forms of CPA have been described: endemic, related to poor socioeconomic conditions, and another type related to atopy. EPA is a less common disease variant with symmetric lesions of diameter >2 cm. EPA is not limited to the face but involves the neck, trunk, shoulders, and surface of the upper limb extensor muscles. The least common variant is PPA with typical bluish lesions. No cases of PPA have been recorded in a Caucasian population. ^[7]

Based on the clinical appearance and distribution of the skin lesions in a child or adolescent, the diagnosis of pityriasis alba is, in most cases, straightforward. If the diagnosis is uncertain, several diagnostic procedures like wood's lamp examination, Potassium hydroxide (KOH test), skin biopsy to rule out other hypo pigmented disorders.

NEED OF THE STUDY

- Studies on Pityriasis alba in India are rare, despite the condition being frequently encountered in dermatological practice.
- No satisfactory treatment in Allopathic system. Since the cause of the condition is unknown and have no infectious aetiology, it does not respond to antibiotics or antifungals and have only a limited response is seen with corticosteroids.
- The cosmetic appearance of the lesions frequently worries patients and their parents.
- One of the most common skin disorder seen in Paediatric age group.
- It takes months to years to resolve itself, but Homoeopathy has a scope in decreasing the duration to resolve and also preventing its recurrence.

- Due to PA's underrepresentation in the medical literature, the disorder's pathophysiology is poorly understood and there are few controlled trials on its treatment. However, the disappointment brought on by the disease's chronic course and the lesions' obvious localization necessitates the necessity for an efficient, secure short-term remedy.
- So, I would like to do a study to understand the efficacy of Homoeopathic medicines in children with Pityriasis alba.

METHODOLOGY

STUDY SETTING: A sample size of 30 cases presenting with pityriasis alba in OPD, IPD and rural centres of Sarada Krishna medical college has been taken.

STUDY DURATION: 1 year

SELECTION OF SAMPLES

- Sample Size – 30 cases
- Sampling Technique – Random sampling.

INCLUSION CRITERIA

- Age group 2 to 18 years
- Both genders
- Child showing the characteristic clinical picture of pityriasis alba has been taken.

EXCLUSION CRITERIA

- Child having skin diseases due to Dermatophytosis and other hypo pigmented conditions.
- Child under topical steroids treatment
- Age less than 2 years and above 18 yrs.

STUDY DESIGN

- Study design contain 30 patients.
- Pre and post photographic evidences has been attached

INTERVENTION

- Medicine selection is through proper case taking & repertorization. Potency selection is based on the susceptibility.
- Follow up has been monitored with respect to pre and post photographs taken.
- Efficacy of homoeopathic treatment has been assessed through Modified Naranjo scale.

TOOLS TO BE USED:

- Data collection tool:

Pre structured Sarada Krishna Homeopathic Medical College chronic case format.

- Homoeopathic medicine selection:

Based on individualization.

BRIEF OF PROCEDURE:

- Child with the complaint of white scaly lesions has been selected.
- 30 number of cases which satisfies the inclusion & exclusion has been taken from the OPD & rural centres of SKHMC.
- Case details are obtained from patient, bystanders, physician's observation including the emotional status of the patient followed by general physical examination and systemic examination according to SKHMC case format.
- Medicine has been selected based on individualization.
- Patient has been examined for 2,4,6 and 8 weeks for a period of 1 year duration for clinical improvement. The reduction in the target area is the primary outcome that has been evaluated using Photographs taken on every followups.
- Clinical outcome also assessed by Digital photographic record (pre and post photographic evidence) and thereby quantify the size of target lesion.
- Improvement has been noted once in 2 week for a period of 8-12 months along with assessment done through Monarch criteria and results are subjected to statistical analysis .

SAMPLE CASE

“Case records are our valuable asset”

SARADA KRISHNA HOMOEOPATHIC MEDICAL COLLEGE & HOSPITAL
 KULASEKHARAM, KANYAKUMARI DIST, TAMIL NADU- 629161

CHRONIC CASE RECORD

Unit: VI

OPNO:11387/24

1. PERSONAL DATA

Name of Patient:- Master. A
 Age :- 8 yrs
 Sex: Male
 Religion:- Christian
 Occupation:- Student
 Family size:- 5 members
 Socioeconomic status-Moderate
 Diet :- Mixed
 Address:- Nagercoil
 Diagnosis:- Pityriasis alba
 Date :-24-12-2024

2. PRESENTING COMPLAINT (s)

Complaints with duration	Location & extension	Sensation/ character & pathology	Modalities (<, >) & A/F	Concomitants/ associated symptoms
Whitish discoloration (since 1 year)	Face	No discharge No itching		Dryness of skin No scaling
Nausea (since 6 months)	Stomach	occasionally	< on eating breakfast	

3. HISTORY OF PRESENT ILLNESS:

The Patient was apparently well before 2 yrs. Later he developed white patches on forehead and spreads to the cheeks and adjacent parts of the face. Took Allopathic medication with local applications for 1 month, but got no relief. The patient sometimes presents with decreased appetite and nauseating sensation after eating breakfast

4. HISTORY OF PREVIOUS ILLNESS WITH TREATMENT ADOPTED

Before 6 yrs Typhoid and Dengue fever- Allopathic treatment-Relieved

5. PHYSICAL GENERALS

App:- decreased
 Thirst :- Good
 Sleep:- Good
 Stool :- Regular
 Urine :- normal
 Sweat:- Increased on head

Desire :- Warm bathing
 Desire :- Eggs
 Intolerance:- Cold
 Aversion :- Fanning
 Thermal :- Chilly

6.A. PHYSICAL EXAMINATION

- Intelligence:- Student
- Ht: 145cm
- Anemia :- No pallor
- Odema:- nil
- BP:- 110/60mm Hg
- General appearance :- good
- Wt:- 28.5kg
- Jaundice:- Not icteric
- Skin:- good
- Pulse :-70/min
- BMI:- 13.5kg/m²
- Cyanosis:- Nil
- Lymphadenopathy:- nil
- Temperature:- 98.6⁰F

6.B.SYSTEMIC EXAMINATION

Skin examination

Inspection: Multiple white spouts over left side cheeks , mild scaling of the lesion ,no discharge, no itching . Associated with dry skin,

Palpation: No tenderness, No local warmth

Pre skin lesion measurement - Largest one Measuring 10mm

7.LAB INVESTIGATIONS &FINDINGS:-NIL

8.A.Analysis of case

COMMON	UNCOMMON
White patches over face	Stubborn Need time for comprehension Nausea on eating breakfast Increased sweat on head Desire: Spicy food,eggs,warmbathing Thermal:chilly

8.B.Totality of Symptoms

Stubborn

Intelligent , but need time for comprehension

Thermal - chilly

Increased sweat on head

Nausea on eating breakfast

Desire - eggs

Desire - Spicy food

Desire warm bathing

Multiple whitish discoloration on both cheeks, no itching

Dryness of the skin

8.C. Evaluation of symptoms

Stubborn

Intelligent , but need time for comprehension

Thermal - chilly

Increased sweat on head

Nausea on eating breakfast

Desire - eggs

Desire - Spicy food

Desire warm bathing

Multiple whitish discoloration on both cheeks, no itching

Dryness of the skin

9.A.SELECTION OF MEDICINE (Repertorial/Non Repertorial)

Non Repertorial

9.B.SELECTION OF POTENCY AND DOSAGE

According to susceptibility of the patient and Homoeopathic principle.

9.C.PRESCRIPTION

R_x

Calcarea carbonica 1M/2dose (once in 15 days)

B Disk (1* BD)

9.D.GENERAL MANAGEMENT AND AUXILLARY MEASURES

- Take food on right time
- Take nutritious diet

9.E.PROGRESS & FOLLOW UP

DATE	SYMPTOM (s) CHANGES	INFERENCE	PRESCRIPTION
18/01/2025	Multiple tiny Whitish spots in face Dryness of the skin Nausea on early morning	Better No of whitish spots reduced Better but persist Relieved	Rx 1. Calcarea carbonica 1M / 1 dose (HS) 2. BTab 1* BD

PRE AND POST PHOTOGRAPHIC EVIDENCE



BEFORE PIC (31/01/2025)



AFTER PIC (24/02/2025)

Research Through Innovation

MODIFIED NARANJO SCALE

MODIFIED NARANJO SCALE

CASE :- 11387/24

[Redacted] J. Jha

SL NO	DOMAIN	YES	NO	NOT SURE
1	Was there an improvement in the main symptom or condition for which the Homoeopathic medicine was prescribed?	✓ +2		
2.	Did the clinical improvement occur within a plausible time frame relative to the medicine intake ?	✓ +1		
3.	Was there any Homoeopathic aggravation of symptoms ?	✓ +1		
4.	Did the effect encompass more than the main symptom or condition (ie were other symptoms not related to the main presenting complaint improved or changed)?	✓ +1		
5.	Did overall well-being improve?	✓ +1		
6a.	Direction of cure :- Did some symptoms improve in the opposite order of the development of symptoms of the disease ?	.		✓ 0
6b.	Direction of cure :- Did atleast one of the following aspects apply to the order of improvement in symptoms : -From organs of more importance to those of less importance organs? -From deeper to more superficial aspects of the individual? -From the top downwards ?	✓ +1		
7.	Did old symptoms (defined as non seasonal and non cyclical symptoms that were previously thought to have resolved)reappear temporarily during the course of improvement ?			✓ 0
8.	Are there alternative causes (ie other than the medicine)that with a high probability could have produced the improvement? (consider known course of disease ,other forms of treatment and other clinically relevant interventions?		✓ +1	
9.	Was the health improvement confirmed by any objective evidence (eg investigations, clinical examination etc)	✓ +2		
10.	Did repeat dosing ,if conducted ,create similar clinical improvement ?	✓ +1		

TOTAL SCORE :- 11

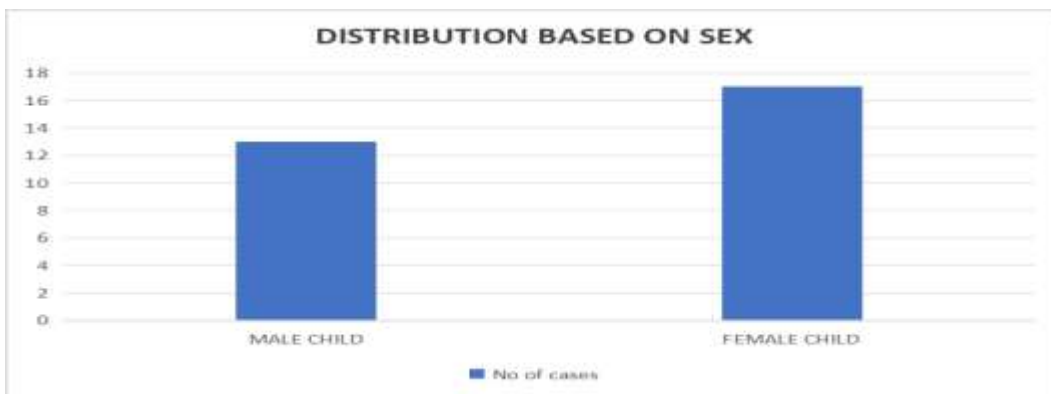


Figure 1

OBSERVATIONS AND RESULTS

Table 1 Distribution based on age group

slno	age in years	no of cases	percentage
1	below 4 yrs	09	30
2	4-10 yrs	15	50
3.	11-18	06	20

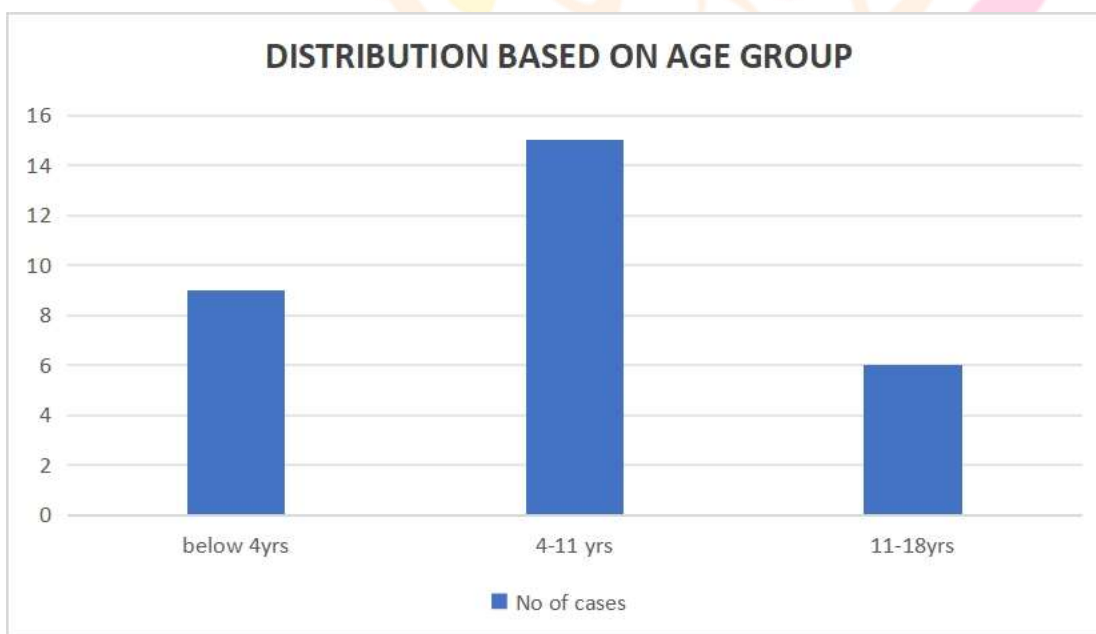


Figure 2

Findings

Out of 30 cases, a majority of the patients belonged to the age group 4-10 yrs with 15 cases (50%), followed by toddler age group below 4 yrs with 9 cases (30%), and 11-18 yrs with 6 patients (20%).

Table 2 Distribution based on sex

slno	sex	no of cases	percentage
1	male child	13	45
2	female child	17	55

Findings

out of 30 cases, pityriasis alba was found predominantly among female children with 17 patients (55%) and male children were 13 (45%).

Table 3 Distribution based on socioeconomic status

	no of cases	percentage
low economic status	8	27
moderate economic status	16	53
high economic status	6	20

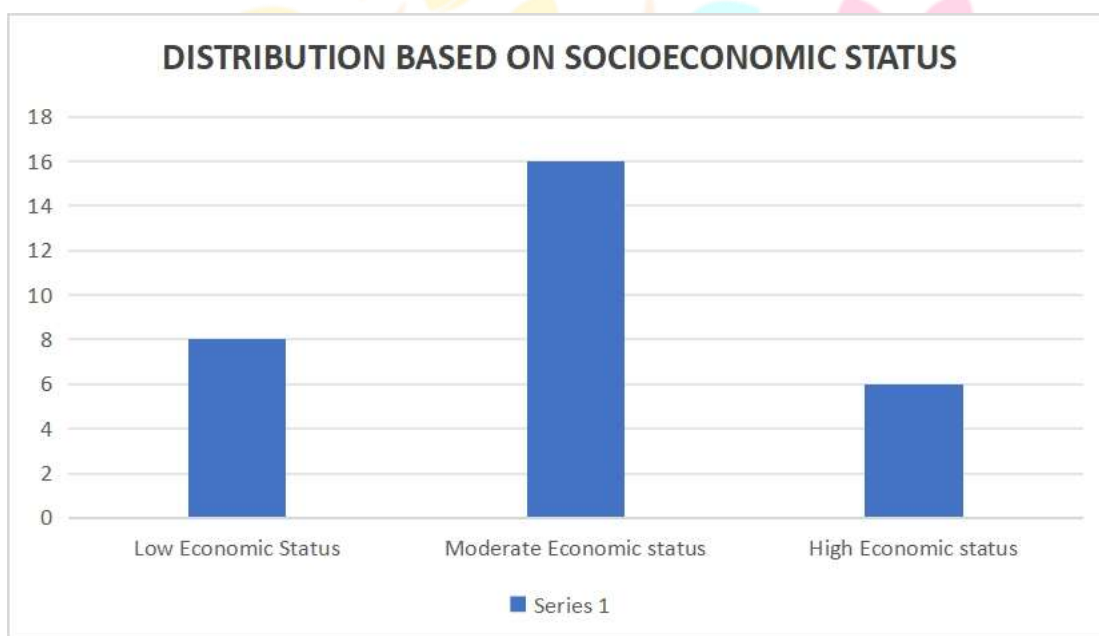


Figure - 3

Findings

out of 30 cases, 16 (53%) cases belonged to a moderate socio-economic status followed by 8 cases (27%) belonged to the lower socio-economic status and 6 cases (20%) to the higher socio-economic status.

Table 4 -Distribution based on nutritional status

	no of cases	percentage
well nourished	16	53
moderately nourished	9	30
under nourished	5	17

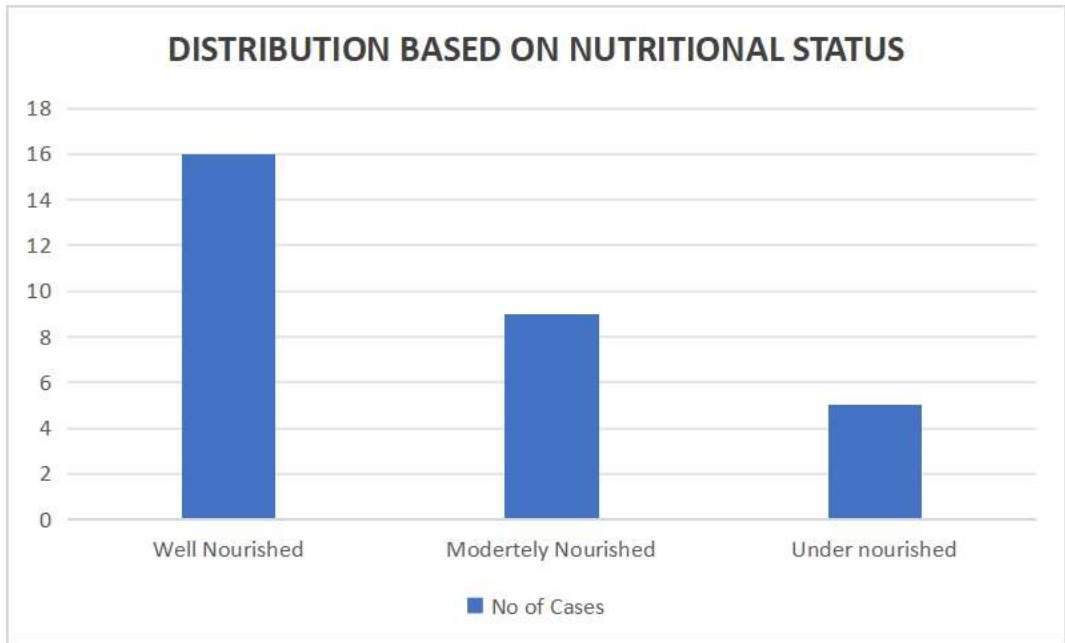


Figure 4

findings

out of 30 cases, 16 (53%) cases are well nourished followed by 9 cases (30%) are moderately nourished and 5 cases (17%) are undernourished

Table -5 Distrubution based on associated illness

sl no	associated illness	no of cases	percentage
1.	allergic rhinitis	11	37
2	bronchitis	4	13
3	recurrent fever	2	7
4	worm infestation	4	13
5	cervical lymphadenopathy	1	3
6	constipation	1	3
7	xeroderma	6	20
8	atopic dermatitis	1	3

Research Through Innovation

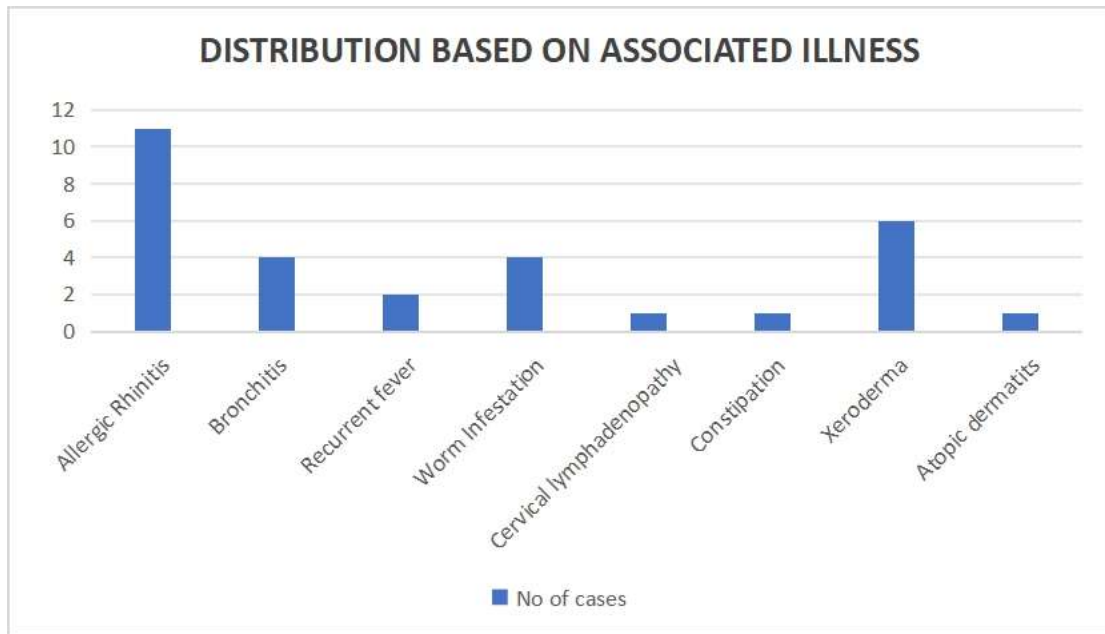


figure 5

findings

out of 30 cases, it was noted that pityriasis alba is mostly seen in association with allergic rhinitis 11 (37%) cases, followed by 6(20%) cases with xeroderma, 4 (10%) cases each with bronchitis and worm infestation, 2 (6%) cases with recurrent fever and 1 case (13%) each seen in association with atopic dermatitis, constipation and cervical lymphadenopathy.

Table -6 distribution based on constitutional medicine

sl no	prescribed medicine	no of cases	percentage
1.	calcarea carb	5	17
2.	lycopodium	2	7
3.	calcarea phos	1	3
4.	silicea	6	20
5	natrum mur	1	3

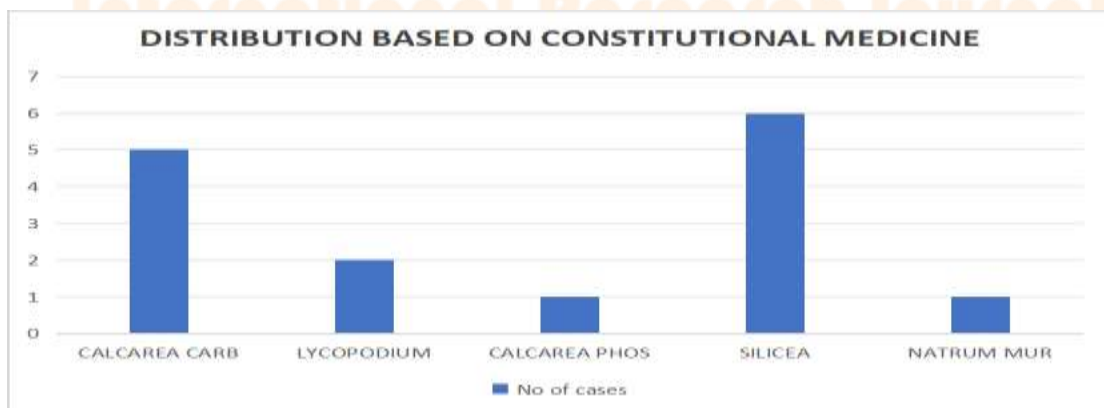


Figure 6

Findings

among the 30 cases based on constitution basis, silicea was prescribed to 6 (20%) cases, calcarea carb to 5 (17%) cases, lycopodium to 2 (7%) cases and calcarea phos to 1 (3%) case.

Table -7 Distribution based on non constituinal medicines

sl no	prescribed medicine	no of cases	percentage
1	arsenicum album	1	3
2	arsenicum iodatum	1	3
3	bacillinum	6	20
4	cina maritima	1	3
5	mercurius solubis	1	3
6	nux vomica	1	3
7	sulphur	2	7
8	tuberculinum	1	3

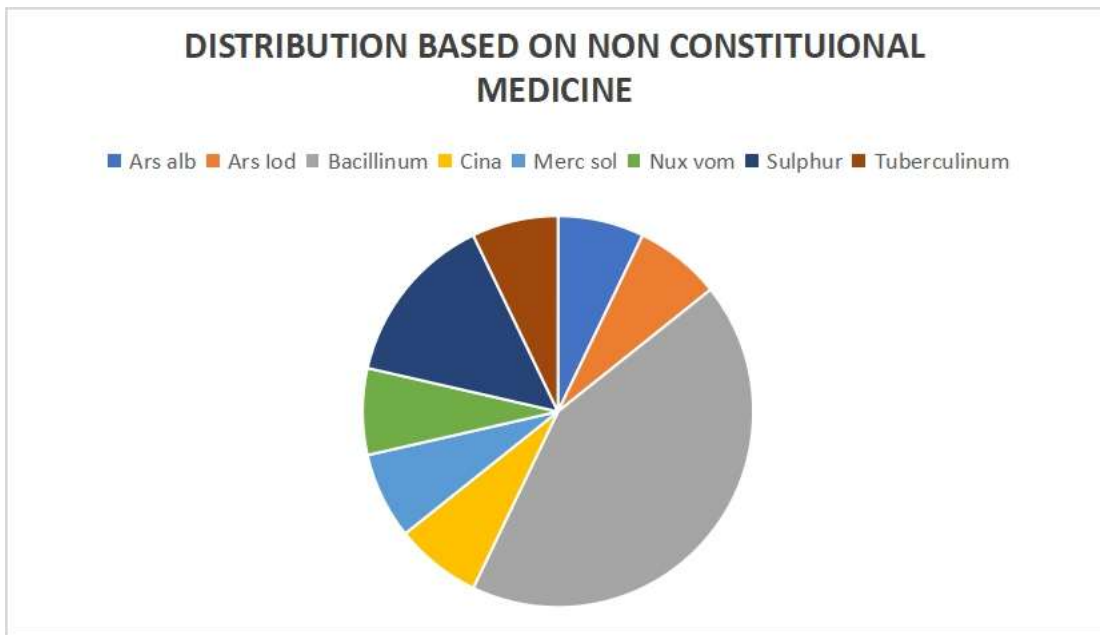


Figure 7

Findings

among the 30 cases based on non constituion , bacillinum was prescribed to 6 (20%) cases, sulphur to 2 (7%) cases amd arsenicum album , arsenicum iodatum , cina maritima ,mercurius solubis , nux vomica, sulphur and tuberculinum to 1 (3%) cases .

Table 8 Distribution based on no of doses used

sl no	no of doses	no of cases	percentage
1	1 dose	6	20
2	2 doses	14	47
3	3 doses	3	10
4	4 doses	7	23

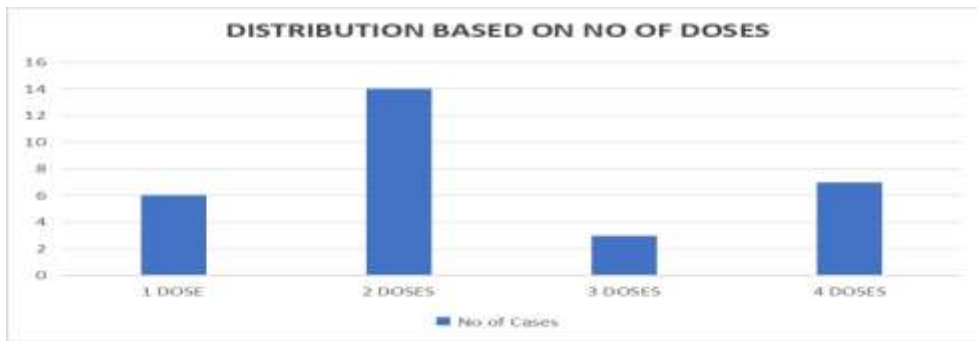


Figure 8

Findings

among 30 cases based on the no of doses prescribed only 2 doses of the medicine was prescribed to 14 cases(47%) , followed by 4 doses to 7 cases (23%) , 1 dose to 6 cases (20%)and 3 doses to 3 cases (10%)

Table 9 Distribution based on time taken to improve by homoeopathic intervention

sl no	time period	no of cases	percentage
1.	2 weeks	2	7
2.	3weeks	2	7
3.	4 weeks	12	40
4.	6 weeks	5	7
5	8 weeks	2	7
6	more than 8 weeks	7	23

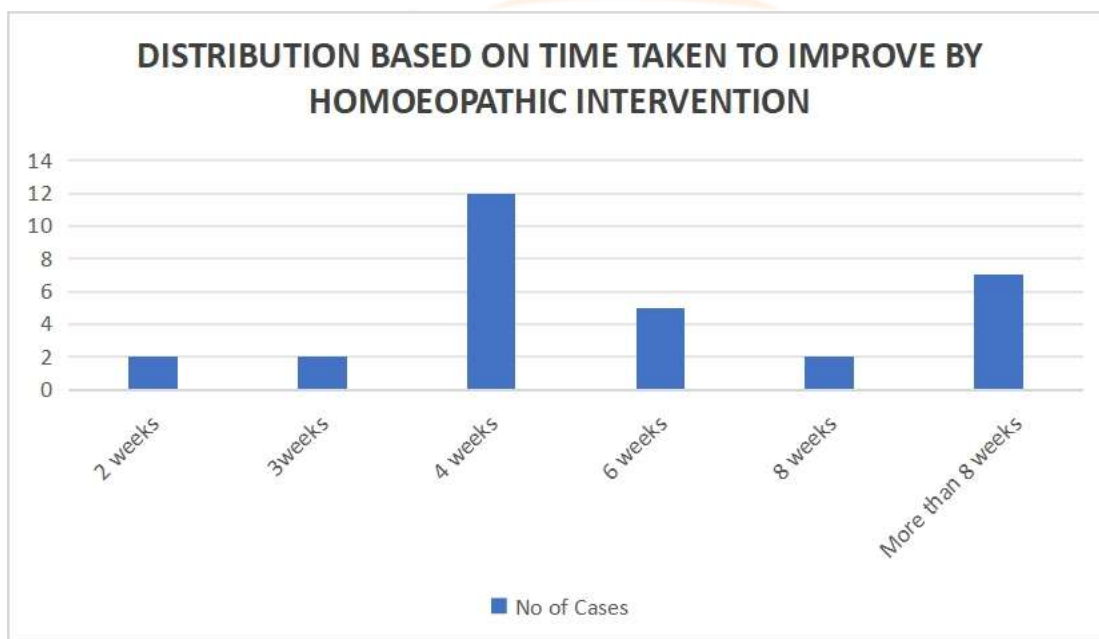


Figure 9

Findings

from the 30 random cases diagnosed with pityriasis alba , it was observed that 13 cases (43%) improved within 4 weeks, 9 cases (30%) improved within 6 weeks ,2 cases (7 %) within 2 week, 3 case (3%) took 8 weeks and more to show improvement.

Table 10 Distribution based on the duration of improvement between constitutional and non-constitutional groups

duration	constitutional medicine	percentage	non-constitutional medicine	percentage
2-4 weeks	9	30	7	23
6 weeks	2	7	3	10
8 weeks	2	7	0	0
more than 8 weeks	1	3	6	20

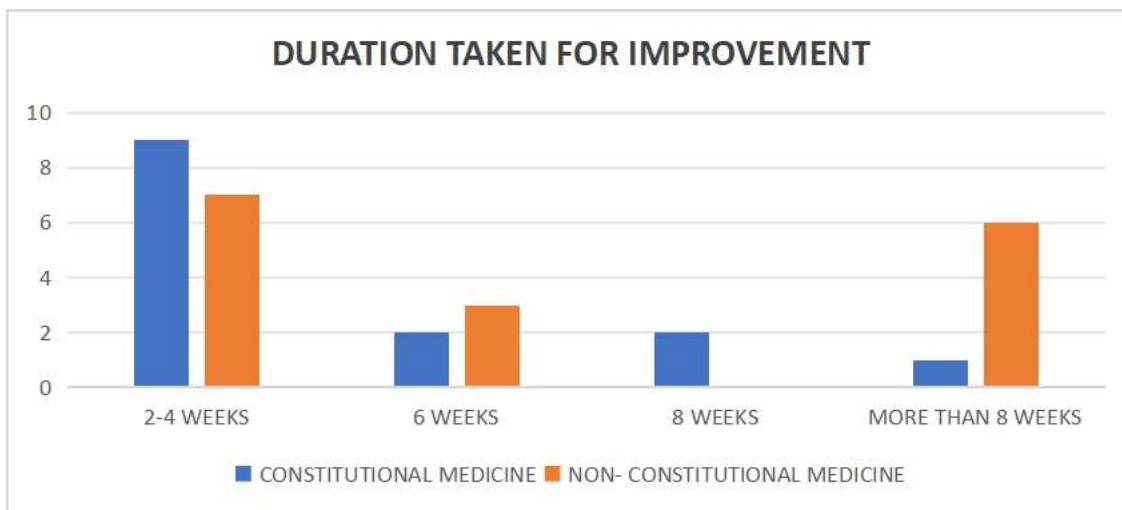


figure 10

findings

out of 30 cases most patients responded within 2–4 weeks, with 9 cases (30%) improving with constitutional medicines and 7cases (23%) with non-constitutional ones. however, when it came to longer durations, especially more than 8 weeks, non-constitutional medicines were needed in 6 cases (20%)compared to only 1(3%) with constitutional treatment.

Table 11 Distribution based on analysis of monarch scale

sl no	monarch score	no of cases	percentage
1	2-8	8	27
2	9-11	21	70
3	above 11	1	3

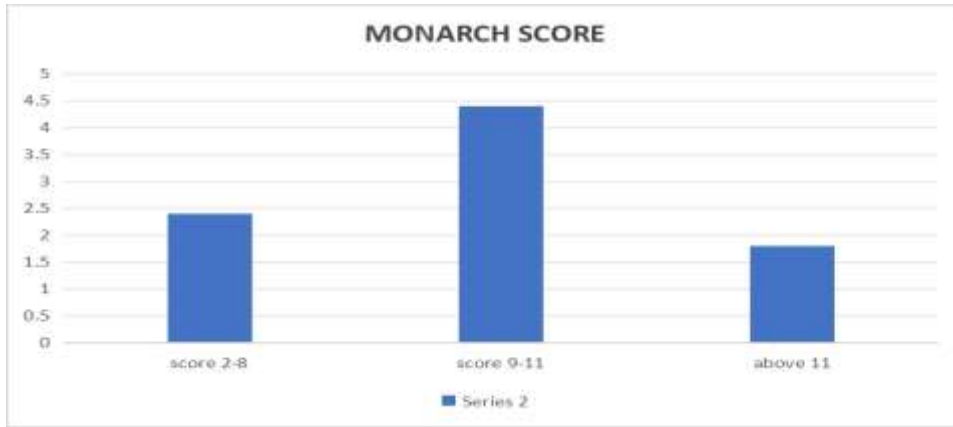


Figure 11

Findings

based on monarch score analysis among the 30 cases , 21 cases (70%) scored between 9-11 , 8 (27%) cases scored between 2-8 and only 1 case(3%) scored above 11.

Table 12 distribution based on improvement

	no of cases	percentage
improved	27	90
not improved	3	10

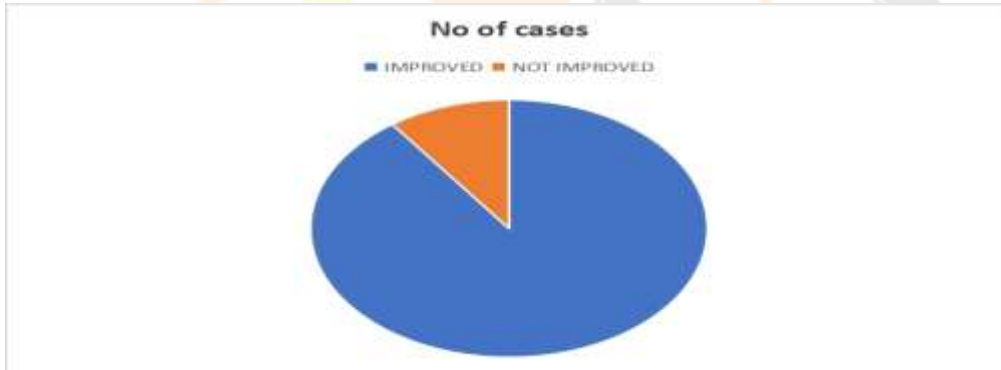


figure 12

findings

among the 30 cases of pityriasis alba , 27 cases (90%) showed marked improvement, while only 3 cases (10%) did not show much improvement.

STATISTICAL ANALYSIS

Question to be answered: whether homoeopathic medicines are effective in managing pityriasis alba in paediatrics

H0: homoeopathic medicines are not effective for managing pityriasis alba in paediatrics

Ha: there will be a significant result in the paediatrics who are diagnosed as pityriasis alba treated with homoeopathic remedies

TABLE 13- Test statistics

paired samples statistics				
		mean	std. deviation	std. error mean
		n		
pair 1	pre_skin_lesion	10.2000	10.72991	1.95901
	post_skin_lesion	3.5000	7.64176	1.39519

Table 13 presents the summary statistics for two variables: pre_skin_lesion and post_skin_lesion. the means for pre_skin_lesion and post_skin_lesion are 10.20 and 3.50, respectively. the standard deviation for pre_skin_lesion (10.73) is higher compared to post_skin_lesion (7.64), indicating greater variability in the pre-treatment measurements. additionally, the standard error mean for pre_skin_lesion (1.96) is higher than post_skin_lesion (1.40), suggesting that the mean of pre_skin_lesion has a larger margin of error.

TABLE 14-PAIRED SAMPLES TEST

paired samples test									
		paired differences					t	df	sig. (2-tailed)
		mean	std. deviation	std. error mean	95% confidence interval of the difference				
					lower	upper			
pair 1	pre_skin_lesion post_skin_lesion	-6.70000	5.55319	1.01387	4.62640	8.77360	6.60829	.000	

Table 14 shows the results of a paired samples t-test, which compares the differences between pre_skin_lesion and post_skin_lesion. the mean difference between the two variables is 6.70, with a standard deviation of 5.55. the 95% confidence interval for the difference in means is between 4.63 and 8.77, indicating that we can be 95% confident that the true difference lies within this range. the t-value is 6.61, with 29 degrees of freedom, and the p-value is 0.000, which is less than the significance level of 0.05. this means that the difference between pre_skin_lesion and post_skin_lesion is statistically significant, suggesting that the intervention or treatment led to a significant reduction in skin lesion

Inference

since p-value is less than 0.05 , null hypothesis is rejected and alternative hypothesis is accepted . so it shows that the study is statistically significant , thereby homoeopathic medicines are effective in the management of pityriasis alba in paediatric age group.

CONCLUSION

From this clinical study among 30 children most cases were seen in the 4–10 years age group, with the fewest in the 11–18 years age group, and the condition was found to be slightly more common in female children than in male children. most affected children belonged to a moderate economic status, followed by those from low status, with the least number from high economic status, and the condition was most commonly seen in well-nourished children. allergic rhinitis was the most frequent associated illness, followed by xeroderma, bronchitis, and worm infestation, while other conditions were less common. silicea and calcarea carbonica were the most frequently prescribed constitutional medicines, while bacillinum served as the preferred non-constitutional remedy in the study, and most cases responded well to just two doses of medicine. improvement was observed in most cases within four weeks, with quicker results generally seen with constitutional medicines, whereas non-constitutional medicines often required a longer duration, especially beyond eight weeks. the majority of cases had monarch scores above 8, indicating a good prognosis, and overall, most cases showed improvement, demonstrating a high effectiveness of the homeopathic intervention.

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