

# Usefulness of Rare and Lesser Known Medicine Gaultheria Procumbens: A Clinical Verification Study

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## ABSTRACT

**Background:** Homoeopathic medicines known for its utility in wider spectrum of pathological conditions. Homoeopathic Science adds new medicines in the system through drug proving and explores additional features of already existed medicines through clinical verification. Gaultheria Procumbens is among those medicines having broader application but lesser known due to limited Clinical Experience with the medicine. Clinical verification of this Medicine will explores many new insights in its healing power and ultimately its utility in day to day practice.

**Aims:** The Main Objective was to study to verify the Clinical Utility of Rare and Lesser Known Medicine Gaultheria Procumbens. Another important objective is to prepare a Remedy Profile of Gaultheria Procumbens from clinical verified Symptoms during study. With research question, Will the verification of rare and lesser known medicine Gaultheria Procumbens helpful in Homoeopathic Practice?

**Setting and Design:** The study was Prospective Analytical & Interventional Clinical Verification study. A clinical study had been conducted in which total 30 experimental samples were Purposively selected from the 3 project sites, Smt. S. I. Patel (Ipcowala)

Homoeopathic Hospital, Amul Dairy Road, Anand and Rural as well as O.P.D. centers situated at Dharmaj, Napad and Anand Agriculture university Health centre.

**Materials and Methods:** 30 samples were selected through Purposive Sampling method with fulfillment of inclusion and exclusion criteria. Data collection was done with the Personal Interview Method According to guidelines given in Organon of medicine, book by Dr. Hahnemann. Remedy Profile of Gaultheria Procumbens from available data during Review of Literature with specially Prepared Case Performa and Scoring systems were selected as tools for data collection. Potency Selection, Repetition and Follow ups were decided according to need of particular case.

**Statistical Analysis:** Paired t- test was done in Microsoft Excel using Pre- Treatment and Post-Treatment Score from Subjective Scoring System MYMOP (Measure Yourself Medical Outcome Profile).

**Result:** Most of the cases 11 (36.67%) were seen in the age group 51-60 that suggest this age group have more Prevalence of the diseases affect the Locomotor system during this era and Female sex having slightly more Predominance than Male sex. Most of cases in this study with Acute phase or Acute Exacerbations of Chronic than the Chronic one. Other variables like potency and diagnosis were also observed.

**Conclusion:** This study helps to verify the medicine Gaultheria Procumbens and Explore its utility in Practical Homeopathy. Some characteristic symptoms as well as sphere of action were also found during this study which will be helpful in prescribing as well as studying the medicine Gaultheria Procumbens. This Primary research will be a good base for further research with Gaultheria Procumbens.

**KEYWORDS:** *Gaultheria Procumbens, Homoeopathy, verification*

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## INTRODUCTION

From the origin of Homeopathy to the present era, there are many medicines recorded which are well proved and clinically verified. Homeopathic Materia Medica is built upon the signs and symptoms produced during proving of the drugs on healthy human volunteers, toxic effects as observed during accidental poisoning or prolonged use of drug and clinical symptoms (observed to disappear while medicines are administered to sick persons.)<sup>[30]</sup>

In Homeopathic practice not only the well proved medicines but also some rare and lesser known medicines according to their utility in clinical practice are also used. Some homeopathic pioneers used these lesser proved medicines in their practice and gave some clinical indications for these particular Medicines and opened the field for further clinical verification.

These rare and lesser known medicines need to be proved again and to discover some another hidden capacity for curing that which were not included by Pioneers.

From these unknown and rare medicines, Gaultheria Procumbens is one of them that is used for few clinical conditions but not well proved or verified. Clinical conditions were not mentioned with any characteristic symptoms. Rheumatism is mentioned to some extent in detail but no more clinical information about other condition like neuralgia or skin were mentioned. Gastric complaints as well as Genital-urinary symptoms were not explored in detailed. Intention to this study was to explore hidden medicinal power of this rare and lesser known drug.

It is a Dwarf, Evergreen shrub to 15cm in height, spreading indefinitely, with rounded leathery leaves, aromatic when crushed and turning reddish in winter. Small bell shaped white or pinkish flowers are followed by scarlet berries 10mm in width.

Wintergreen is an aromatic evergreen shrub native of North America. Also called Canada tea or Deer berry Wintergreen is often used to relieve pain and inflammation. The leaves of Wintergreen contain Methyl salicylate, which is closely related to aspirin.

Several tribes, including the Delaware and Mohican have used a tea made from leaves to treat kidney disorders. The great lakes and eastern woodland Indian tribes have used poultices from wintergreen, applying them topically to treat arthritic aches and pains. The available data regarding Gaultheria Procumbens were collected and thoroughly analyzed to find lacunae and explore the scopes for further research regarding Gaultheria Procumbens. After reviewing the data related Botanical and

Pharmacological aspect of Gaultheria from Modern view, Methyl Salicylate and its role in action of Gaultheria was explored that gives some understanding regarding the anti-inflammatory action of Gaultheria Procumbens. Ayurvedic view regarding Gaultheria explored the use of Gaultheria in various conditions like Dysmenorrhoea, Psoriasis and other properties like hepato-stimulant activity to boost Digestion, Anti-inflammatory, Anti-arthritic and Anti-septic. In Homoeopathic side review, very few details regarding its action mentioned in other literature were found. This scarcity of information in Homeopathic literature was one lacuna and ultimately a Scope for research in Homoeopathic field. Some clinical indications and experiences of Pioneers were helpful as primary tool for verification as well as exploration of its symptomatology in field of Homoeopathic world.

Dr. Allen, Pulford, Clarke, Chaudhari in their materia medica books and from Boericke materia Medica, the following clinical conditions were mentioned. And Dr. E. P. Anshutz in his book new old and forgotten remedies mentioned about its efficacy in cases of Neuralgia.

Gastritis, Neuralgia, Pleurodynia, Rheumatism, Sciatica, Inflammatory rheumatism, pleurodynia, sciatica, and other neuralgias, come within, the sphere of this remedy. Cystic and prostatic irritation, undue sexual excitement, and renal inflammation.

**OBJECTIVE:** To verify the Clinical Utility of Rare and Lesser Known Medicine Gaultheria Procumbens

### MATERIALS AND METHOD:

**STUDY SETTING:** -Project site: - 1) Smt. S. I. Patel (Ipcowala) Homoeopathic Hospital – Shree Dr. V. H. Dave Homoeopathic medical college, Anand, Gujarat. 2) Dharmaj Rural O.P.D 3) Napad Rural O.P.D 4) Agriculture Health Center, Anand

**STUDY DURATION:** - 6 Months **STUDY DESIGN:** - Analytical & Prospective Interventional study **SELECTION OF SAMPLE:** - Sampling method: - Random sampling. Sample size: - 30. **RESEARCH QUESTION AND HYPOTHESIS OF STUDY:**

**Research Question:** 1) Will the verification of rare and lesser known medicine Gaultheria Procumbens helpful in homeopathic Practice? 2) To study Clinical Symptomatology of Gaultheria Procumbens.

**Research Hypothesis:** Null hypothesis: There will be no usefulness of verification of Rare and Lesser Known medicine Gaultheria Procumbens. Alternative hypothesis: There will be usefulness of verification of Rare and Lesser Known medicine Gaultheria Procumbens. **INCLUSION CRITERIA:** a) The cases of all age group irrespective of gender. b) The cases where Gaultheria Procumbens were indicated

through its available symptomatology and pathogenesis and sphere of action. c) Case with functional change or with Reversible Pathology. **EXCLUSION CRITERIA:** a) The cases where there was severe irreversible pathology except irreversible pathology related to Rheumatic complaints. b) The cases where Gaultheria Procumbens was not indicated. c) The cases which did not maintain the Regular follow ups. **DATA COLLECTION:** collection method:- Personal interview .

**OBSERVATIONS AND ANALYSIS:** Data obtained can be grouped in three different sections. **DEMOGRAPHIC DATA:** The data includes Age and Sex of the patients from the study. **CLINICAL DATA:** These include data related to the Phase of diseases and Diagnosis. **MANAGEMENT AND TREATMENT:** These include the Potency and Obtained result.

- The study reveals that gaultheria was efficacious in diseases of Middle age group with Female preponderance. Disease with Acute Exacerbation of chronic or acute types was well managed with Gaultheria Procumbens.
- Gaultheria was more efficacious in Mother Tincture as well as 200<sup>th</sup> potency.
- Most of cases show the moderate improvement with maximum prescribed potency mother tincture and 200<sup>th</sup>
- The study was statistically analyzed with Pre - treatment and Post Treatment data of Subjective Scoring System MYMOP used in this study.
- Statistically Student’s t- test was applied and shows the Usefulness of verification of Symptomatology of Gaultheria Procumbens in Homoeopathy.

**BRIFE OF PROCEDURE**

Case taking according to 6<sup>th</sup> edition of Organon of Medicine was done at project site

Cases meeting inclusion and exclusion criteria were included in the study

Gaultheria was Prescribed for study cases and According to need Appropriate potency was selected

Follow up on CTP every 3/7/15 days according to need of case

After 6 months of Intervention on the basis of: -Follow up On CTP and Assessing Scoring System Criteria(subjective symptom scoring scale MYMOP was used for study

Outcome assessment was done with statistical analysis (Paired t test)

Prepare a conclusion from result and analysis

DIAGNOSIS	NO.OF CASES	PERCENTAGE
Rheumatoid Arthritis	6	20%
Gout	6	20%
Osteoarthritis of Right Knee	3	10%
Osteoarthritis of Left Knee	4	13.3%
Right Sided Sciatica	3	10%
Left Sided Sciatica	2	6.66%
Lumbar Backache	1	3.33%
Post Chikungunya Arthritis	1	3.33%
Dysmenorrhoea	3	10%
Toothache	1	3.33%
Total	30	100

**ANALYSIS OF DATA:**

The study “To Verify Clinical Utility of the rare and Lesser Known Medicine Gaultheria Procumbens” deals with following aspects:

➤ **Research Question:**

- Will the verification of rare and lesser known medicine Gaultheria Procumbens helpful in homeopathic Practice?

- To study Clinical Symptomatology of Gaultheria Procumbens

➤ **Research Hypothesis:**

- Null hypothesis: There will be no usefulness of verification of Rare and Lesser Known medicine Gaultheria Procumbens
- Alternative hypothesis: There will be usefulness of verification of Rare and Lesser Known medicine Gaultheria Procumbens

➤ Here as above the Research Hypothesis could be mentioned in following

Null hypothesis: -  $H_0$

Alternative hypothesis: -  $H_1$

**Null hypothesis:**

Here we have to test first null hypothesis in the study,

Null hypothesis: -  $H_0$

Where,  $H_0$  means  $d = \mu_1 - \mu_2 = 0$ ,

$d$ = difference

$\mu_1$ = Pre –treatment score

$\mu_2$  = Post- treatment score

Above formula suggests that there is no difference between the Pre- treatment Score and Post-treatment Score.

So, here null hypothesis is accepted

**Alternative Hypothesis:**

Where,  $H_1$  means  $d = \mu_1 - \mu_2 \neq 0$

Here there may be 2 possibility are there,

1.  $d = \mu_1 > \mu_2$  ( $\mu_1$  greater than  $\mu_2$ )

2.  $d = \mu_1 < \mu_2$  ( $\mu_1$  lesser than  $\mu_2$ )

Here,  $d$ = difference

$\mu_1$ = Pre – treatment score

$\mu_2$  = Post- treatment score

➤ Above formula suggests that there is difference between the Pre- treatment Score and Post-treatment Score.

➤ The Pre treatment and Post treatment score of study “**To Verify Clinical Utility of the Rare and Lesser Known Medicine Gaultheria Procumbens**” are mentioned in the following table:

Case No.	Pre-T/t Score ( $\mu_1$ )	Post -T/t Score ( $\mu_2$ )	$D=(\mu_1 -\mu_2)$ Or $X=(\mu_1 -\mu_2)$	$(X-\bar{X})$	$(X-\bar{X})^2$
1	6	2	4	1.2	1.44
2	6	3	3	0.2	0.04
3	6	3	3	0.2	0.04
4	6	3	3	0.2	0.04
5	6	2	4	1.2	1.44
6	6	4	2	-0.8	0.64
7	4	2	2	-0.8	0.64
8	4	2	2	-0.8	0.64
9	6	2	4	1.2	1.44
10	2	0	2	-0.8	0.64
11	6	2	4	1.2	1.44
12	4	2	2	-0.8	0.64
13	6	4	2	-0.8	0.64
14	6	2	4	1.2	1.44
15	6	2	4	1.2	1.44
16	4	2	2	-0.8	0.64
17	4	2	2	-0.8	0.64
18	6	2	4	1.2	1.44
19	4	0	4	1.2	1.44

Case No.	Pre-T/t Score ( $\mu_1$ )	Post -T/t Score ( $\mu_2$ )	D=( $\mu_1 -\mu_2$ ) Or X=( $\mu_1 -\mu_2$ )	(X- $\bar{X}$ )	(X- $\bar{X}$ ) <sup>2</sup>
20	6	2	4	1.2	1.44
21	4	2	2	-0.8	0.64
22	4	3	1	-1.8	3.24
23	2	0	2	-0.8	0.64
24	2	1	1	-1.8	3.24
25	6	2	4	1.2	1.44
26	4	2	2	-0.8	0.64
27	6	4	2	-0.8	0.64
28	6	2	4	1.2	1.44
29	4	2	2	-0.8	0.64
30	6	2	4	1.2	1.44
<b>Total</b>	148	63	$\sum D$ or $\sum X = 85$		$\sum (X-\bar{X})^2 = 32.2$

Here, Statistical Significance of the study was carried out in 2 Methods.

1. Statistical t-Test: Paired Two Sample for Means - Manually using following formula

$$A. t = \bar{X}/S_D/\sqrt{n}$$

Where,  $\bar{X}$ = The mean Difference  
 $S_D$ = Standard deviation  
 $n$ = Sample Size

2. Statistical t-Test: Paired Two Sample for Means- using Microsoft Excel

### 1. STATISTICAL T-TEST: PAIRED TWO SAMPLE FOR MEANS - MANUALLY USING FORMULA

➤ **Null and Alternative Hypothesis:** Null and Alternative Hypothesis as mentioned above. Here, **before test we are accepting Null hypothesis** i.e. There will be no usefulness of verification of Rare and Lesser Known medicine Gaultheria Procumbens

#### A. Standard error of the mean of difference

1.  $n = 50$
2. ( $\mu_1$ )= Pre treatment Score
3. ( $\mu_2$ )= Post treatment Score
4.  $\bar{X}$  or  $D$ = Mean Difference
5.  $\sum X$ = Total Mean Difference

The mean Difference

$$\begin{aligned}\bar{X} &= \sum X/n \\ &= 85/30 \\ &= 2.833\end{aligned}$$

$$\sum (X-\bar{X})^2 = 32.2$$

The estimate of population standard deviation is given by

$$\begin{aligned}S_D &= \sqrt{\sum (X-\bar{X})^2 / n-1} \\ &= \sqrt{32.2/30-1} \\ &= \sqrt{32.2/29} \\ &= \sqrt{1.1103} \\ &= 1.05370\end{aligned}$$

The estimate of standard error of mean=  $S_D/\sqrt{n}$

$$\begin{aligned}&= 1.0537/\sqrt{29} \\ &= 1.0537/5.385 \\ &= 0.19567\end{aligned}$$

#### B. Critical Ratio

$$\begin{aligned}t &= \bar{X}/S_D/\sqrt{n} \\ &= 2.833/0.19567 \\ &= 14.4784\end{aligned}$$

**C. Comparison with table value:**

This critical ratio,  $t$  follows a distribution with  $n-1(29)$  degrees of freedom. The 5% level is 2.045 and 1% level is 2.756 for 29 degrees of freedom. Since the calculated value 14.4784 is greater than the tabled value at 5% and 1% level, **hence the null hypothesis is rejected.**

**2. STATISTICAL T-TEST: PAIRED TWO SAMPLE FOR MEANS - USING MICROSOFT EXCEL**

**A. Null and Alternate Hypothesis:** Null and Alternative Hypothesis as mentioned above. Here, **before test we are accepting Null hypothesis** i.e. There will be no usefulness of verification of Rare and Lesser Known medicine Gaultheria Procumbens.

**B. When theoretically tested,** criteria for acceptance and rejection of hypothesis were applied to Null and Alternative Hypothesis then Null Hypothesis is rejected as there was a difference between Pre and Post Treatment score. ( $H_0$  means  $d = \mu_1 - \mu_2 = 0$  is rejected and  $H_1$  means  $d = \mu_1 - \mu_2 \neq 0$  is accepted.)

**C. Now this Hypothesis testing was done with statistical techniques p value followed by t-test (t-Test: Paired Two Sample for Means) in Microsoft Excel.**

- As study show, 2 Value as Pre and Post treatment score then on the basis of statistical principles, Paired- t test is suitable for calculation using Symptoms Scores(Pre and Post).
- Before applying Student t test, p value/Probability testing is essential for acceptance and rejection of null hypothesis.( p value was  $\leq 0.05$  selected as base value for interpretation of test)

SUMMARY OUTPUT					
<i>Regression Statistics</i>					
Multiple R	0.64091368				
R Square	0.41077035				
Adjusted R Square	0.38972643				
Standard Error	0.77714889				
Observations	30				
<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	11.78911	11.78911	19.5196721	<b>0.000135777</b>
Residual	28	16.91089	0.60396		
Total	29	28.7			
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	
Intercept	-0.2079208	0.541304	-0.38411	0.70379807	
Pre-T/t Score	0.46782178	0.105887	4.418107	<b>0.00013578</b>	
	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>	
	-1.316732644	0.90089106	-1.31673	0.900891	
	0.250921331	0.68472223	0.250921	0.684722	

- There is a Significant Positive relationship between the Pre and Post Treatment Score,  $r(28) = 0.64$ ,  $p = 0.00013$ . (r-Multiple R, 48 is degree of freedom in regression method.)
- Here in this test, p value is 0.00013 which is smaller than 0.05 and this result suggest the strong probability to reject null hypothesis. This result supports the result of theoretical testing.
- *Null hypothesis:* There will be no usefulness of verification of Rare and Lesser Known medicine Gaultheria Procumbens(REJECTED)
- *Alternative hypothesis:* There will be usefulness of verification of Rare and Lesser Known medicine Gaultheria Procumbens (ACCEPTED)
- So, here Null hypothesis is rejected and Alternative hypothesis is selected to apply further statistical calculations.
- So, with acceptance of Alternative Hypothesis we can apply Student t test for further analysis.
- Here, MMeans of Pre- and Post- treatment scores are respectively 4.93 and 2.1. So, Mean difference between this variable(Pre and Post Treatment Score is as follows,

t-Test: Paired Two Sample for Means		
	<i>Pre-T/t Score</i>	<i>Post -T/t Score</i>
Mean	4.933333333	2.1
Variance	1.857471264	0.989655172
Observations	30	30
Pearson Correlation	0.64091368	
Hypothesized Mean Difference	0	
Df	29	
t Stat	14.73514005	
P(T<=t) one-tail	2.65685E-15	
t Critical one-tail	1.699126996	
P(T<=t) two-tail	5.31371E-15	
t Critical two-tail	2.045229611	

- Mean difference of Pre Score - Mean Difference Of Post Score  
I. i.e.  $4.93-2.1 = 2.83$  (Mean Difference)

**D. Here, value of Mean Difference and t stat value using Manual Formula and Microsoft Excel is similar and nearly Similar respectively.**

Application Method of t-test	Mean Difference between Variable (Pre and Post Treatment score)
Manually using Formula	2.83
Microsoft excel	2.83

Application Method of t-test	t- stat value
Manually using Formula	14.47
Microsoft excel	14.73

- E.** Apart from Mean Variable, Calculation of Microsoft Excel shows values of the p (Pearson Correlation) as well as t –one tail and t-two tail also.

<b>t Stat</b>	<b>14.73514005</b>
P(T<=t) one-tail	2.65685E-15
t Critical one-tail	1.699126996
P(T<=t) two-tail	5.31371E-15
t Critical two-tail	2.045229611

- F.** In above table the value of t stat is greater than the values of one tail and two tail values. This significant difference shows the effectiveness of Homoeopathic Medicines.

- G.** So, it can be consider as a Verified as well as Extended result of Manual method.

#### **Inference:**

- Value of Mean Difference in Pre and Post treatment Score shows that the decreased in Post treatment value due to action of Homoeopathic medicines. Result of p value and t test also support the alternative Hypothesis. These all data suggest, there will be usefulness of verification of Rare and Lesser Known medicine *Gaultheria Procumbens*.

**DISCUSSION:** The study of the dissertation titled: **“To Verify Clinical Utility of the Rare and Lesser Known Medicine *Gaultheria Procumbens*”** was carried out at Smt. S. I. Patel (Ipcowala) Homoeopathic Hospital, Amul Dairy Road, Anand and Rural O.P.D. centers situated at Dharmaj, Napad and Anand Agriculture University. The study was a prospective type of study and a research oriented one evidencing the working result of verification of Rare and Lesser Known Drug *Gaultheria Procumbens*. A clinical verification study had been conducted in which total 30 experimental samples were randomly

selected from the 4 project sites as mentioned earlier. The results obtained have been represented in various tables supported by the figures and discussed under:

#### **AGE INCIDENCE**

As shown in observation 1 out of 30 selected cases, Maximum cases 11(36.67%) were from the age group 51 to 60 years of age followed by 7(23.33%) from the 41 to 50 years of age group were observed. No any cases from age 0 to 10 and 11 to 20 years of age groups were observed. This suggests usefulness of *Gaultheria Procumbens* is more in Disease condition affecting the Middle age groups.

## SEX INCIDENCE

As shown in observation 2, in this study, 25(83.33%) cases with Female sex and 5(16.67%) cases with Male sex were observed. Maximum cases with female sex, this suggests Usefulness of Gaultheria in dysmenorrhoea also favor its utility in female sex.

## PHASE OF DISEASE

As shown in observation 3, in this study, 21(70%) of Cases with the Acute Exacerbation of Chronic and 9(30%) of Cases with Acute Phase were observed. This suggests the efficacy of Gaultheria Procumbens is more in cases with Acute phase and Acute Exacerbation of Chronic than Chronic Fully Developed Cases. So, this study confirms the Anti-inflammatory and irritant action of Gaultheria which were mentioned under Chemical Constituents<sup>(6)</sup> and Allen's Encyclopedia of Pure Materia Medica<sup>(1)</sup> with reference to some cases of Toxicity from Gaultheria Procumbens and its Chemical Constituents.

## POTENCY

As shown in observation 5, In the Study, out of 30 cases significantly improved cases were 1 case from all three potency which used during this study. For moderately improved cases 10 cases with Mother Tincture Q, 7 cases with 30 potency and 9 cases with 200<sup>th</sup> potency was observed. Only one case of status quo with mother tincture was observed. Usefulness of Gaultheria Procumbens with Material Doses more as compare to Potentized form. This study confirms the observation of Dr. B. F. Lang mentioned under the heading of Gaultheria Procumbens in Clarke's Dictionary of Practical Materia Medica which is as follows:

A. F. Lang (H. R., ix. 214, 340) has related his experience with material doses in - ciliary neuralgia; facial neuralgia; gastric, ovarian, uterine, and menstrual neuralgias; sciatica; and inflammatory rheumatism. (H.R. - Homoeopathic Recorder)

This was one of the verified indications presents in Ayurvedic literature.<sup>29</sup>

## DIAGNOSIS OF DISEASE

In the Study, out of the 30 Cases Maximum cases of Rheumatoid Arthritis 6(20%) and Gout 6(20%) were observed followed by Osteoarthritis Of Left Knee 4(13.3%) cases, Osteoarthritis Of Right Knee 3(10%) cases, Right sided Sciatica 3(10%) cases, Dysmenorrhoea 3(10%) cases, Left sided Sciatica 2(6.66%) cases, Lumbar backache 01 case (3.33%), Post Chikungunya Arthritis 01(3.33%), Toothache 1(3.33%) were observed. This study confirms the action and utility of Gaultheria Mentioned in Ayurvedic<sup>(29)</sup> and Homoeopathic Literature<sup>(2, 11, 7, 8, 19, 10, 18, 4.)</sup> which were mentioned under the Review of Literature.

Efficacy of Gaultheria in Dysmenorrhoea confirms the utility of Gaultheria in Female Disorders mentioned in Ayurvedic Literature.

Efficacy of Gaultheria in Cases of disease Condition related to Locomotor system Confirms the clinical Utility of Gaultheria Mentioned by Various Pioneers of Homoeopathy.

## OBTAINED RESULT

As shown in observation 9, In the Study, out of 30 cases 26(86.666%) cases were Moderately Improved, 3(10%) cases were Significantly Improved and 1(3.33%) case (Master Chart Case no. 22) of Status quo. Most of the cases are Moderately Improved that suggests usefulness of Gaultheria Procumbens when Homeopathically indicates.

## SYMPTOM SCORING

As shown in observation 10, difference between Pre-treatment Score and Post-treatment Score suggest the effectiveness of Prescribed Medicine Gaultheria Procumbens relieving the Complaints.

- Some characteristic finding is following:
- Gaultheria was more effective in Cases of Gout whereas associated complaints acidity was present.
- In Dysmenorrhea, lower potency like 30 and material form i.e. Mother Tincture was more efficacious to relieving complaint in within short span of time. This is one of the verified indications presents in Ayurvedic literature.<sup>29</sup>
- Gaultheria was better suited when symptom of Dryness and Cracked tongue was present in case.

## Limitations of Study: -

- As this was a Small sample sized Purposive Sampling study, due to presence of very few characteristic symptoms for Prescription of Gaultheria. So, it couldn't take place of well-organized Randomized Control Studies.
- Since the sample size is limited to 30 cases, Generalization of result and conclusion of study may not be so effective.
- Some cases couldn't be considered in this study because of discontinuation of treatment. For example, Cases with Skin Complaints were not included due to irregular and deficient follow ups.
- Some cases demanded the long-term observation for the proper study which practically was not possible due to time limit.
- In some case necessary information was lacking and the study was based on the available data. Most of cases from the Rural O.P.D. and cases of



Poor people, so extensive data regarding lab investigation were difficult to collect.

- Some follow ups were taken by various physicians on various time, hence proper recording of the symptoms with intensity was difficult.
- The assessment scale may not be full proof; human errors are possible. Certain variables like quality of medicine, method of dispensing medicine, placebo effects could not be controlled well.

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**Further recommendations: -**

- Study with control group or comparative study between Gaultheria and other medicine will be more helpful to explore the effectiveness of Gaultheria Procumbens.
- Random sampling, Bigger sample size and Extended time Period of Research are always more scientific to study.
- Attempt to can be made to explore its utility for Skin diseases and Genito-urinary system

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