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**ADVANTAGES OF APPLICATION OF MEDICINE IN PLUSSING
METHOD IN THE MANAGEMENT OF ACUTE FEBRILE CONDITIONS**

INTRODUCTION

Homoeopathy is a system of medicine which uses similimum to cure the disease. For this the remedy must be homoeopathic, it should be given in minimum dose, in correct potency and repeated only when needed.

A well selected remedy, in case of a chronic disease, brings about cure within 40, 50 or 100 days, in its single dose and in an acute disease frequent repetition can be done. For the rapid, gentle and permanent cure, the similimum can be dynamized by dissolving in water and given in definite intervals, so that cure is even faster.

Commonly used scales of potencies in homoeopathy are centesimal scale, decimal scale and 50 millisemal scale. Plussing method was suggested by Dr.Hahnemann in between the discovery of centisemal scale and 50 millisemal scales. By giving plussing potency the gap between 30th -200th, 200th -1M, 1M-10M, 10M-50M, 50M-CM could be filled. Plussing method is mainly used in centisemal scale because the very next higher potency is not available in this scale as that of LM scale of potency. It is a link between the two potencies.

The practice in vogue in administrating homoeopathic medicine in acute febrile conditions is to give one or the same potency in repeated doses. This will give way for medicinal aggravation as has been pointed out by Hahnemann.

Many of the acute febrile cases were treated by giving plussing potency when repetition of next potencies shows less effectiveness.

As per Hahnemann, in §246, The first dose already stimulates the vital force, the next same unchanged dose will not prove useful, sometimes it makes the patient sick. Repeated dosing has proven beneficial for restoration of health and to give effective cure. Advantage of application of very next higher potency is beneficial to overcome the resistance of vital force (§247). In this way we can achieve rapid homoeopathic cure by avoiding the risk of homoeopathic or any other untoward aggravation by changing potency.

In practice:

In acute disease, the process of repetition with change in dose and potencies can be followed every 2-6 hrs or even often.

In chronic disease this repetition can be done on every 2nd day or daily for months as long as the patient experiences continued improvement. In case of appearance of new symptoms, a more suited truly homoeopathic remedy has to be selected as the first remedy. Repetition of this new similimum can be also done in the same manner.

Importance of plussing potency in modern world:

Need of plussing potency is important where daily dose become necessary. The obstacles to cure are increasing day by day. The usage of junk food, agino motto, spices perfumes, cosmetics etc, this has been unavoidable for the patients. Here single dose medicine is out of question. Therefore plussing potency could prove effective.

NEED OF THE STUDY

The acute febrile conditions are more prevalent and cause complications, if untreated. While treating such condition with the similimum the underlying disease also get cured. Treating these conditions with the plussing potency we can give the patient a rapid cure without any unwanted aggravation.

There is no such controlled study of giving medicines in plussing method in acute febrile conditions previously done. The following acute cases of febrile conditions were taken with the intention of conducting an evidence based study having ease of measurement and cases available. The present study is aimed at investigating whether there is result in either of the methods, plussing method and application of same potency and how often it is repeated in order to achieve the cure/relief.

REVIEW OF LITERATURE

- §247(6th EDITION)

It is impractical to repeat the same unchanged dose of a remedy once, not to mention its frequent repetition (and at short intervals in order not to delay the cure). The vital principle does not accept such unchanged doses without resistance, that is, without other symptoms of the medicine to manifest themselves than those similar to the disease to be cured, because the former dose has already accomplished the expected change in the vital principle and a second dynamically wholly similar, unchanged dose of the same medicine no longer finds, therefore, the same conditions of the vital force. The patient may indeed be made sick in another way by receiving other such unchanged doses, even sicker than he was, for now only those symptoms of the given remedy remain active which were not homœopathic to the original disease, hence no step towards cure can follow, only a true aggravation of the condition of the patient. But if the succeeding dose is changed slightly every time, namely potentised somewhat higher (§ 269-270) then the vital principle may

be altered without difficulty by the same medicine (the sensation of natural disease diminishing) and thus the cure brought nearer. [28]

- **The second prescription:** It is a rule after you gone through a series of potencies never to leave that remedy until or more doses of the higher potency has been given and tested without effect that is the only means you have of knowing that this remedy has done all good it can for this patient and change is necessary. [25]
- The remedy should not be changed without very good reasons, it is probable that the remedy may be repeated at the necessary intervals through a whole range of potencies, reccuring this full amount of good from each potency before passing on to the next. [26]
- But in taking one and the same medicine repeatedly (which is indispensable to secure the cure of a serious, chronic disease), if the dose is in every case varied and modified only a little in its degree of dynamization then the vital force of the patient will calmly and as it were willingly receive the same medicine even at brief intervals vary many times in succession with the best results, every time increasing the well-being of the patient. [27]
- To achieve rapid homoeopathic cure, one has to apply homoeopathically selected medicine with gradually increasing potency by diluting medicine and succussing the dilution, giving medicine from lower to higher potency even after the symptoms improve very cautiously. [5]
- In an attempt to find a simpler alternative for those needing repeated doses, we began using the water administration method of the 12C and 30C potencies with some of our patients with the technique called “plussing”. We followed the precise instruction given to us by the concerned pharmacy Hahnemann Homoeopathic Laboratories with plussed medicines. We have our patients’ shake the bottle vigorously ten times, and then place five drops of the liquid under the tongue. This is much less complicated procedure than preparing LM medicines. [8]
- Application of the electromagnetic spectrum in Homoeopathy: The preparation of potency (The Plussing technique) homoeopathic potencies is available in standard potencies. In some cases, one may require a slightly a higher potency which is not readily available. To overcome this problem, a technique has been devised termed as a “deviated doses repeated schedule.”

In his Organon of Medicine §2, Hahnemann states that " the highest ideal of cure is a rapid, gentle and permanent restoration of health, or removed and annihilation of the disease in its whole extent in the shortest, most reliable and most harmless way on easily comprehensible principles ".

The plussing technique would seek to achieve this aim, gradually increasing the potency till one reaches the exact resonance of the individual since it is at this precise potency that cure would take place as Hahnemann wished in § 2. ^[9]

- As a general guide below are the basic indications. I give in handling LM potencies: Gabriel Gampuzano Pina used a 125ml bottle of the remedy for the patient. And a dose is prepared shaking the bottle 8 to 10 times (not more), dissolving 3ml (a teaspoon) in half a glass of water (125ml) and taking a soup spoon from the glass. The succession of the remedy (8 to 10 times) in a liquid form adequate the dose in an increasing stimulus to the vital force. And the different dilutions we can create make the potency appropriate. The quality of successions and the dilutions in LM potencies are crucial for the effect of the remedy. ^[10]
- The ‘plussing’ method and the indications for plus according to Luc De Shepper is quite interesting. “For sensitive patients, in order to dull the possibility of aggravating the step from LM1 to LM 2, I would tell them that when the LM 1 bottle has only one teaspoon remaining, to fill it with purified water half way and then continue with the same number of succession (this is the plussing method) since the last teaspoon LM 1 contains all the added successions it is the strongest teaspoon of LM 1 and therefore the ideal one to be diluted. This way, when the patient finishes this plussing bottle, and take the first teaspoon of LM 2 (if still needed), any aggravation will be minimal or non-existent.” ^[13]
- Plussing method was developed by Hahnemann and he included it in §248 of his main work of Organon of the medical art. Many homoeopaths like plussing method and recommended using it for acute conditions and even some chronic one the beauty of plussing is that you increase the potency of the remedy.

Plussing is useful for cases in which you notice that the initial dose of the job effectively but then the recipient got worse again. That the child needs another dose of same remedy. In such situations, plussing works well. ^[20]

- **Evolution of plussing method:** These are 2 principles of posology (administration of similimum in liquid form and changing degree of dynamization with each dose) served as basis “for evolution of plussing method of remedy administration. The major advantage suggested was, Plussing not only minimizes further the risk of aggravation but also ensures a medicine’s more powerful impact. Several physicians have used this method of remedy administration with wonderful success in their clinical practice^[14]
- **Management of the case :**When in a series acute case the amelioration is too short and the patient is in a desperate condition, we may give the same remedy , if still indicated , in lower or medium potency in repeated doses , either dry on tongue or in water , or by the “plussing” method^[21]
- **Plussing:** In course of treatment sometimes it happens that the good effect of the drug ceases to appear at a certain stage or aggravation sets in, in such condition some strokes given to the transmitting set brings about the desired effect and in case of no response even after this the potency has to be raised a bit by plussing. With every plussing it has been experienced that the drug reveals its further good effect. Moreover it eliminates the chance of violent reaction.^[22]
- Max the cat was suffering from liver cancer, she was being treated with chelidonium by Dale moss, a homoeopath in Massachusetts. The cancer was metastasized max was unhappy and tired despite of the treatment given by Dale. She was noticeably suffering from the hot weather, so dale treated her for that with another liver support remedy in addition to continuing with the plussing regimen. According to dale(Plussing means dissolving a high potency remedy in distilled water, taking ten doses by dropper or teaspoon a day, usually one dose every fifteen minutes , over the time frame of two and a half hours).^[19]
- **Plussing:** A method of further potentiising a remedy whereby the drug dose is dissolved in water and several sips are taken a period of time. The act of dissolving the remedy in water increases the potency hence plussing, but also delivers the remedy in a more gentle form. From the remaining water a second dilution can be prepared plussing it to the next slightly higher potency.^[17]

- Another method of multiple dosages which almost amounts to divided single doses is that of plussing. “Plussing gives somewhat wider range of plane and is particularly indicated in stubborn and refractory cases”. [4]
- When administered in water , whether further succussion or dilution pluss succession is required as treatment progress in order to increase the level of potency (so called “plussing”). [23]
- Sometimes, the first prescription acts only for a relatively short time, paving the way, as it were, for the following dose which though in same potency which may act much longer. Probably because of this experience, Hahnemann developed his method of plussing, which in some cases of delayed response proves extremely useful. [18]
- Remedies are capable of transmitting their potency to another vessel of normal water, rendering it potentised in turn- a sip from the glass then serves as a dose. Homoeopath’s call this “plussing” and value it as a procedure to use in the home on weekends when need is acute and remedy supply is sparse. [16]
- In case of influenza treatment. You can use Oscillococcinum at the first sign of any symptoms and its 2-3 doses, 4-8 hours apart. It is given in plussing method. On feeling better, the treatment can be stopped. [24]
- ***The Plussing method instructed by Dr.T.P.Elias:*** Plussing means after dissolving the already prepared dose in a 3rd glass of water two spoonfuls are taken and the rest thrown away, the water is added up to the original quantity and again stirring the succussions are done. From this again two spoonfuls are taken and the rest is thrown away and the process is repeated. From the two spoonfuls one is given to the patient and other is kept for further plussing. [3]
- For a chronic problem that’s not intense and has been around for a long time, starting with a 12C once or twice a day or a 9C twice a day or a 6C three or four times a day is appropriate as it matches the plodding nature of a chronic complaint. Keep in mind that this is just the starting potency, as it will surely have to be raised going forward as it wears off; and we do that by “plussing” the bottle. [7]
- As homeopathy is individualized, so is plussing method. It is based on
 - Dilution makes the remedy solution gentler.

- Succussing (pounding the bottle with medicinal solution against your other palm-Hahnemann used his Bible!) makes the remedy solution stronger (increases potency) and more aggressive.
 - Vital force of the body, through which remedies work, likes it much better if the doses are given in slightly different potencies.
 - Since remedy strength is much more adjusted to the patient-there are minimal aggravations (contrary to the dry dose).
 - Since the remedy is taken every day you have very little chance for antidoting.
 - Since the potency is changed every time you take it-you do not prove the remedy. Plussing is like making c-potencies a budget-friendly LMs.
- Plussing is a good method in case of children, sensitive people, in some disorders. ^[6]
- Administering a remedy by the Plussing Method. This procedure, which has its roots in Hahnemann's early disciples, then passed on to homeopaths worldwide - boasts a number of variations. But essentially it involves diluting a given remedy in water and taking a spoonful of it at regular intervals, stirring before every dose (this last is done in order slightly to change the potency or vibration of the medicine).He reports significant success rate improvements from previous pre-plussing methods. ^[11]

AIM AND OBJECTIVES

- To find out whether there is result in either of both methods, plussing method and application of same potency
- How often it is repeated in order to achieve the cure

METHODOLOGY

Selection of sample

- Sample size : 30 cases
- Sampling technique : Simple random sampling

Method:

Detailed case taking was done with the help of hospital case record. Each case was analyzed, evaluated and prescribed according to the principles of homoeopathy. Prescription is based on the totality of symptoms.

Preparation of doses

The Plussing method instructed by Dr.T.P.Elias: Plussing means after dissolving the already prepared dose in a 3rd glass of water two spoonfuls are taken and the rest thrown away, the water is added up to the original quantity and again stirring the succussions are done. From this again two spoonfuls are taken and the rest is thrown away and the process is repeated. From the two spoonfuls one is given to the patient and other is kept for further plussing.

After administering the 1st remedy, the medicine is further repeated in plussing method till the patient feels better.

Total 30 cases will be included in the study of which 15 cases will be given medicine in plussing method and other 15 cases the medicine is given without changing potency.

Sources of Data

A sample of 30 cases taken from patients with acute febrile conditions visiting in the OPD, IPD of college hospital for homoeopathic treatment will be randomly assigned for study.

Method of collection of data

Data will be obtained from the patients, bystanders, physician's observation and physical examination.

Inclusion criteria:

- Patients of age group between 5- 60yrs
- Both sexes
- Diagnostic criteria is mainly based on the clinical presentation
- Improvement criteria are based on the symptomatic relief

Exclusion criteria:

- Patients of age group below 5yrs and above 60yrs
- Patient suffering with sever pathological symptom
- Patient with other systemic illness
- Patients those who are presenting after treatment from other system of medicine for acute febrile condition

Assessment of effectiveness:

After following up the cases, assessment of the effectiveness of the treatment was done based on the following criteria:

- Clinical assessment was based on improvement of generals (appetite, thirst, sleep, stool, urine and sweat), constitutional symptoms and drop in temperature.

Plan for data analysis:

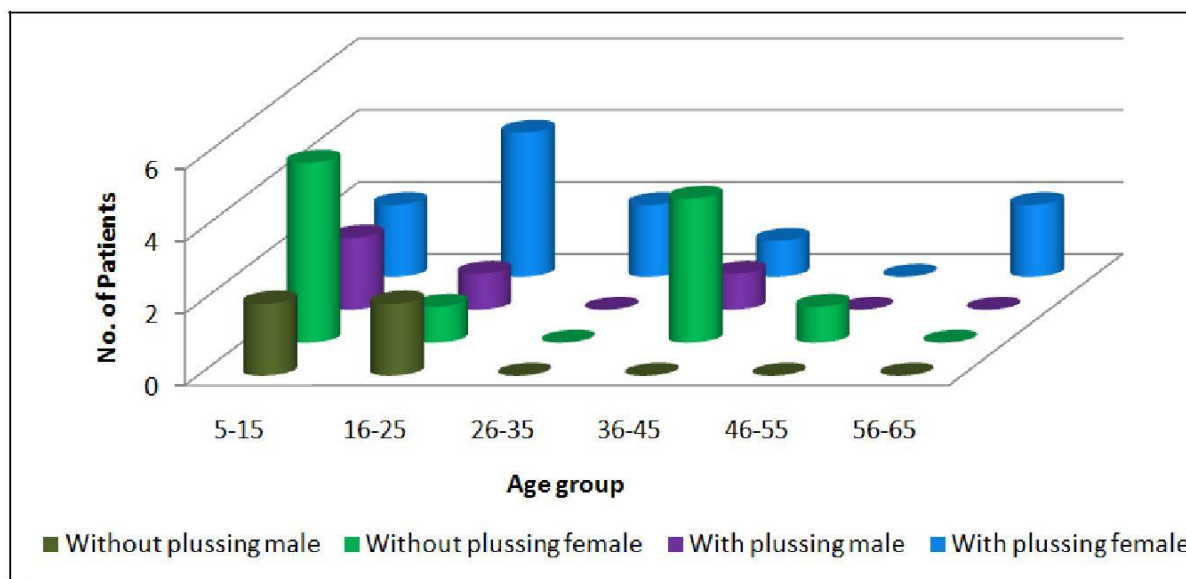
Data will be analyzed by using descriptive statistics and the results will be presented by using frequency table, percentage, diagram and graphs.

OBSERVATION AND RESULT

A sample of 30 cases, who attended the collegiate hospital were taken for the study. These 30 cases were divided in two groups, as group 1 and group 2 with 15 patients (cases) each. Group 1 medicines were repeated in plussing method and group 2 medicines were repeated without plussing.

In all the cases, temperatures was noted at every 12 hours (12 hourly) and were tabulated to be considered for the statistical study. The results were presented on the basis of data obtained from groups. The following tables and figures reveal the observation and result of this study.

Fig 1: Classifying the study subjects based on age and sex among groups



In group 1, there are 4 patients (26.66%) in the age group 5-15yrs among which 2 are male and 2 are female. There are 5 patients (33.33%) in the age group 16-25yrs, among which 1 case is male and 4 cases (80%) are female. In the age group 26-35yrs there are 2 patients (13.33%) who are female. 2 patients (13.33%) in the age group 36-45yrs, among which 1 is male

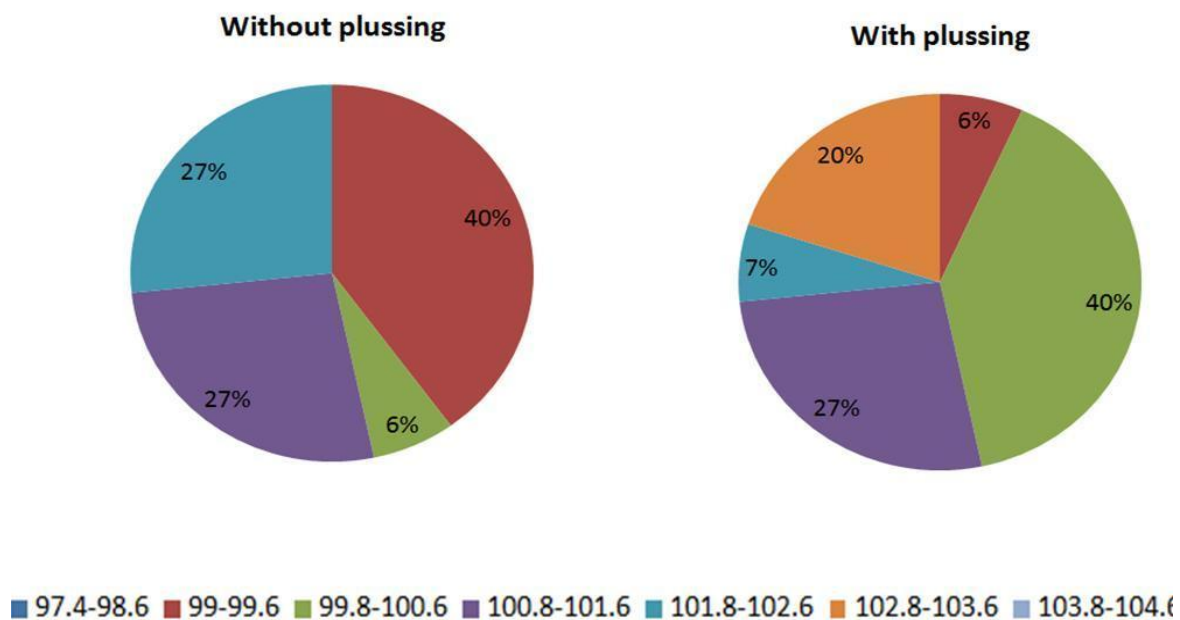
and 1 is female. 2 cases (13.33%) are in the age group 56-60yrs. Both the cases are female. The highest incidence is of the age group 16-25yrs. (Fig 1)

In group 2, there are 7 patients (46.66%) in the age group 5-15yrs among which 2 cases (28.57%) are male and 5 cases (71.42%) are female. There are 3 patients (20%) in the age group 16-25yrs, among which 2 cases (66.66%) are male and 1 case is female. 4 patients (26.66%) in the age group 36-45yrs, among which all are females. There is 1 (6.66%) case in the age group 46-55yrs who is a female. The highest incidence is of the age group 5-15 yrs. (Fig 1)

Table 1: Temperature distribution among groups before treatment

Temp before treatment	98.6-99.6	99.8-100.6	100.8-101.6	101.8-102.6	102.8-103.6
With plussing	1	6	4	1	3
Without plussing	6	1	4	4	0

Fig 2: Distribution of Temperature among patients in both groups before treatment



In group 1 the maximum of 6 patients (40%) were having temperature in the range of 99.8 F-100.6 F, during admission. 4 patients (26.66%) had a temperature ranging between 100.8 F-101.6 F. 3 patients (20%) had temperature at a range of 102.8 F-103.6 F. 1 patient had temperature of 99 F. (Table 1, Fig 2)

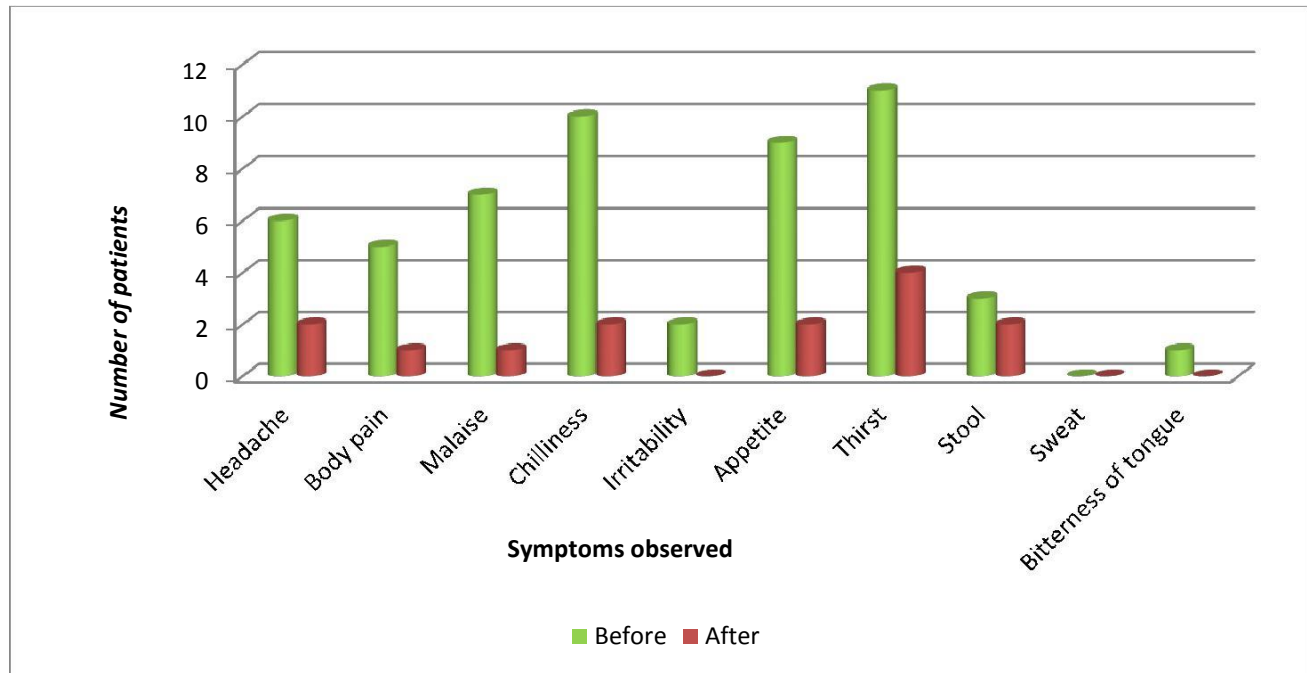
In group 2 the maximum of 6 patients (40%) had a temperature between the range of 99 F-99.6 F. 4 patients (26.66%) had a temperature ranging between 100.8 F-101.6 F. 3 patients (20%) had temperature at a range of 102.8 F-103.6 F. 1 patient had temperature of 99 F. (Table 1, Fig 2)

After the treatment for all the patients both in group 1 and group 2, the temperature have become normal.

Table 2: Distribution of symptoms among the patients with and without plussing potency before and after the treatment

Symptom	No. of patients			
	With plussing		Without plussing	
	Before	After	Before	After
Headache	6	2	7	2
Body pain	5	1	7	1
Malaise	7	1	3	0
Chilliness	10	2	12	1
Irritability	2	0	2	1
Appetite	9	2	12	1
Thirst	11	4	11	5
Stool	3	2	3	1
Sweat	0	0	2	0
Bitterness of tongue	1	0	2	0

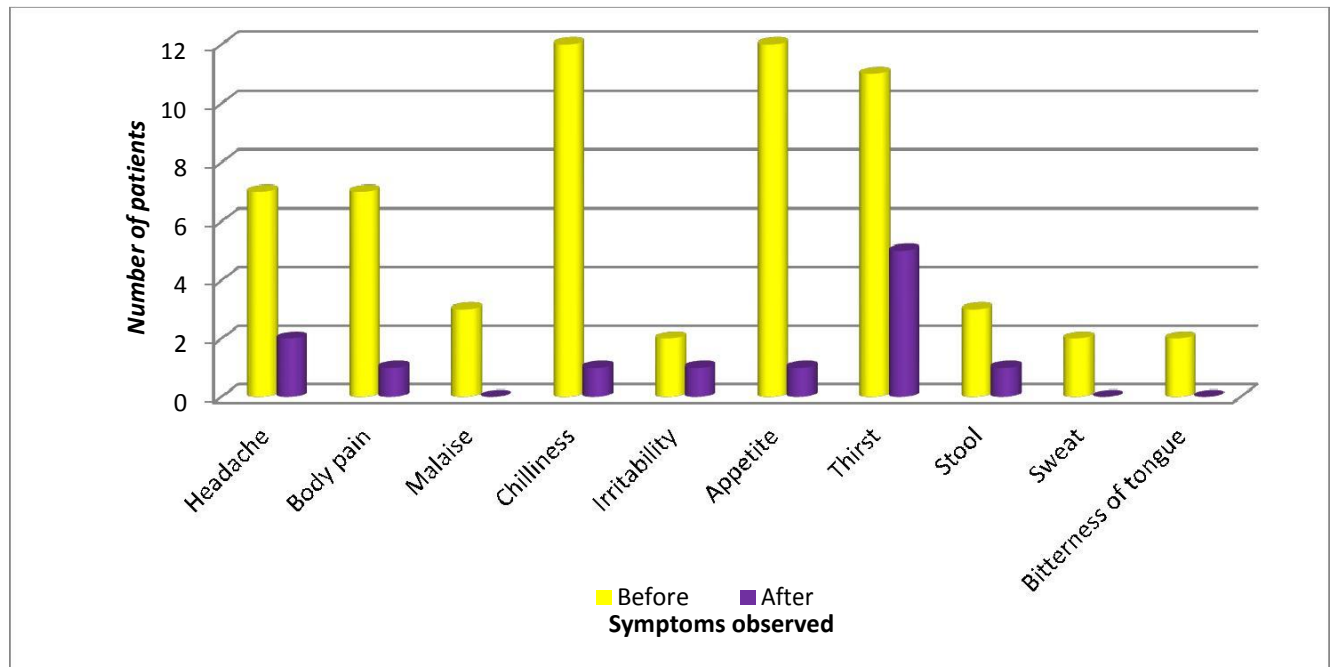
Fig 3: Distribution of symptoms among the patients with plussing potency before and after the treatment



In group 1, there were 6 patients (40%) who had headache before the treatment and after the treatment it was reduced to 2 patients (13.33%). Similarly 5 patients (33.33%) were suffering from body pain before the treatment and it was reduced to 1 patient after the treatment. There were 7 patients (46.66%) who had malaise with fever before giving the medicine and it was reduced to 1 patient after the treatment. 10 patients (66.66%) had chilliness with fever before the treatment and it was reduced to 2 patients (13.33%) after the treatment. There were 2 patients (13.33%) who suffered from irritability before treatment and after the treatment, none suffered with the symptom. Before treatment 9 patients (60%) had alteration in appetite and it has reduced to 2 patients (13.33%) after treatment. There were 11 patients (73.33%) who had alteration in thirst and it has reduced to 4 patients (26.66%) after treatment. 3 patients (20%) had alteration in their bowel movements and it was reduced to 2 patients (13.33%) after treatment. Sweat was not

a presenting feature in group 1 patients before and after the treatment. 1 patient presented with bitterness of tongue before treatment which was cured after the treatment. (Table 2, Fig 3)

Fig 4: Distribution of symptoms among the patients without plussing before and after the treatment



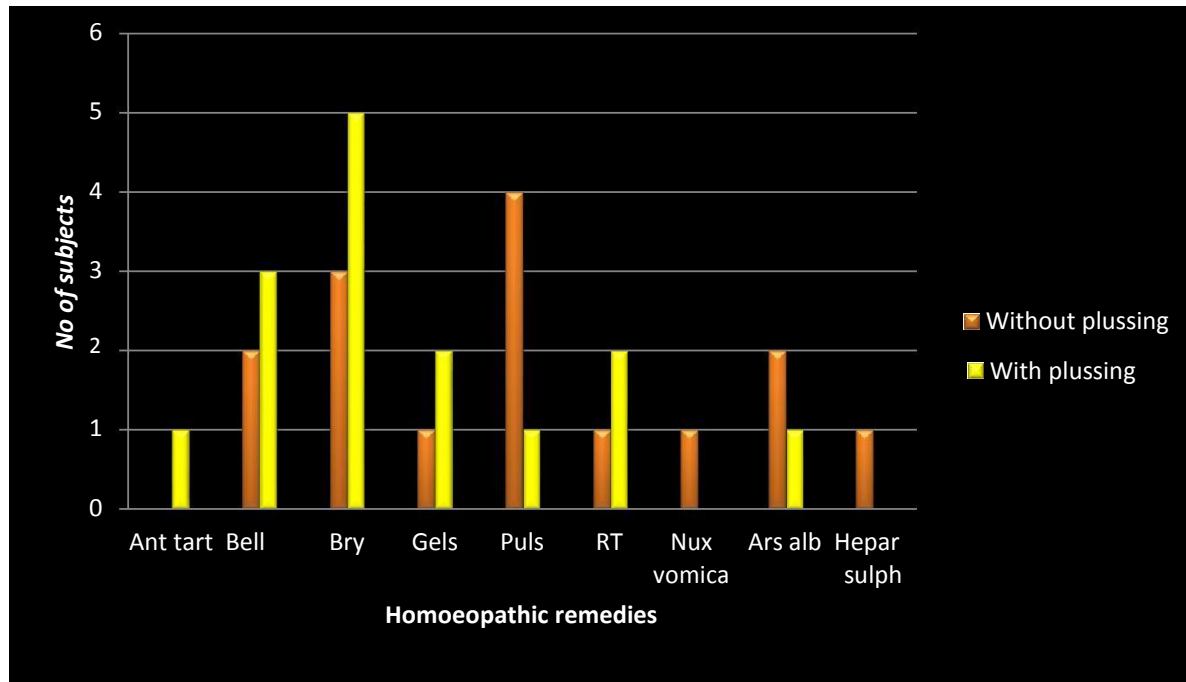
In group 2 there were 7 patients (46.66%) who had headache before treatment and after treatment it was reduced to 2 patients (13.33%). Similarly 7 patients (46.66%) were suffering from body pain before treatment and it was reduced to 1 patient after treatment. There were 3 patients (20%) who had malaise with fever before giving the medicine and after treatment none presented the symptom. 12 patients (80%) had chilliness with fever before the treatment and it was reduced to 1 patient after the treatment. There were 2 patients (13.33%) who suffered from irritability before the treatment and after the treatment there was only 1 patient suffering from irritability. Before the treatment 12 patients (80%) had alteration in appetite and it has reduced to 1 patient after the treatment. There were 11 patients (73.33%) who had alteration in thirst and it

has reduced to 5 patients (33.33%) after the treatment. 3 patients (20%) had alteration in their bowel movements and it was reduced to 1 patient after the treatment. Increased perspiration was seen in 2 patients (13.33%) before the treatment and after the treatment no patient presented the symptom. There were 2 patients presenting with bitterness of tongue and after the treatment the patients were cured. (Table 2, Fig 4)

Table 3: Homoeopathic remedies prescribed to the patients for both the groups

Homoeopathic remedies	With plussing	%	Without plussing	%
Ant tart	1	6.66	0	0
Bell	3	20	2	13.33
Bry	5	33.33	3	20
Gels	2	13.33	1	6.66
Puls	1	6.66	4	26.66
RT	2	13.33	1	6.66
Nux vomica	0	0	1	6.66
Ars alb	1	6.66	2	13.33
Hepar sulph	0	0	1	6.66

Fig 5: Homoeopathic remedies prescribed to the patients for both the groups



In plussing method maximum number of 5 patients (33.33%) received *Bryonia alba*. This is followed by *Belladonna* for 3 patients (20%) which is followed by *Gelsemium sempervirens* and *Rhus toxicodendron* in 2 cases (13.33%) each. *Antimonium tartaricum*, *Pulsatilla nigricans* and *Arsenicum album* each were given in 1 case each. (Table 3, Fig 5)

In group 2, maximum number of 4 patients (26.66%) received *Pulsatilla nigricans* which is followed by *Bryonia alba* in 3 (20%) cases. *Belladonna* and *Arsenicum album* were given in 2 (13.33%) cases each. *Gelsemium sempervirens*, *Rhus toxicodendron* and *Arsenicum album* each were given in 1 (6.66%) cases. (Table 3, Fig 5)

Table 4: Temperature readings at an interval of 12 hour in group 1 (In Fahrenheit)

PLUSSING POTENCY											
Op No.	0 th hour	12 th hour	24 th hour	36 th hour	48 th hour	60 th hour	72 nd hour	84 th hour	96 th hour	108 th hour	120 th hour
12218/14	99	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
4184/7	101.8	101	100	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
1327/12	99	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
13769/8	100	99.8	99.6	99.4	99	98.6	98.6	98.6	98.6	98.6	98.6
14649/14	100	98.8	99	99.2	98.6	98.6	98.6	98.6	98.6	98.6	98.6
7424/13	100	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
7761/6	101.4	100.8	99	99.8	98.6	98.6	98.6	98.6	98.6	98.6	98.6
6628/14	101.8	101	99	99	98.6	98.6	98.6	98.6	98.6	98.6	98.6
6619/09	102.8	101	100	99.6	100	99.8	99	98.6	98.6	98.6	98.6
9454/6	101	100	99.4	99	98.6	98.6	98.6	98.6	98.6	98.6	98.6
12526/8	103	100	99.4	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
5966/13	100.4	100.4	100	99.2	98.6	98.6	98.6	98.6	98.6	98.6	98.6
13940/8	100	99	99.8	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
6029/14	101	100	100	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
6660/14	99.8	99	98.8	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6

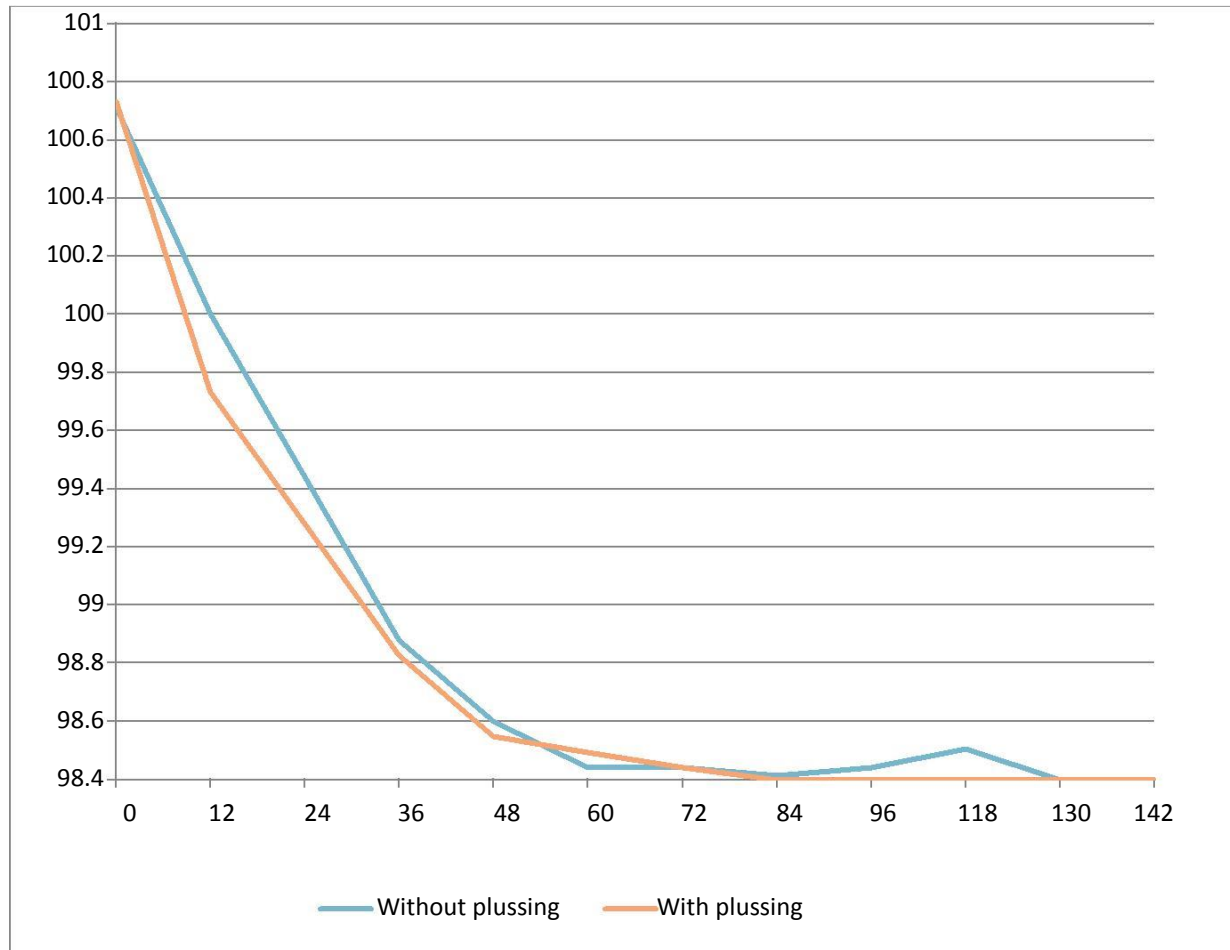
Table 5: Temperature readings at an interval of 12 hour in group 2 (In Fahrenheit)

WITHOUT PLUSSING											
Op No.	0 th hour	12 th hour	24 th hour	36 th hour	48 th hour	60 th hour	72 nd hour	84 th hour	96 th hour	108 th hour	120 th hour
10530/14	101.8	99.8	98.8	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
08 15	100.4	99.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
1405/15	102.4	100.8	99.6	99	98.6	98.6	98.6	98.6	98.6	98.6	98.6
14347/14	99.4	99	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
14284/14	100	99.4	101	100.8	99.2	98.8	98.6	98.6	99	100	98.6
13908/14	99	100	99.8	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
1366/13	102.2	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
14324/14	100.8	100	99.6	99	99.8	98.6	98.6	98.6	98.6	98.6	98.6
13709/14	103	101	99.8	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
8752/14	101.6	100.8	100	100.2	98.8	98.8	99	98.6	98.6	98.6	98.6
16559/6	100	102	100	99	98.8	98.6	98.6	98.6	98.6	98.6	98.6
14372/14	99.2	100	100.8	99.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
3317/10	99	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
11467/14	100.8	100.4	99.8	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6

Table 6: Average readings at 12 hour interval (In Fahrenheit)

Time (Hrs)	0 th hour	12 th hour	24 th hour	36 th hour	48 th hour	60 th hour	72 nd hour	84 th hour	96 th hour	108 th hour
Without plussing	100.7	100	99.5	99	98.7	98.6	98.6	98.6	98.6	98.6
With plussing	100.7	99.7	99.3	98.9	98.7	98.6	98.6	98.6	98.6	98.6

FIG 6: Decrease in temperature after homoeopathic management



The first temperature was noted at the time of visit. Then temperature is recorded every 12 hours. In group 1 patients, there is gradual decrease in temperature and is restored to the normal temperature. While taking the average, the temperature touches the normal line at 84th hour. (Fig 6)

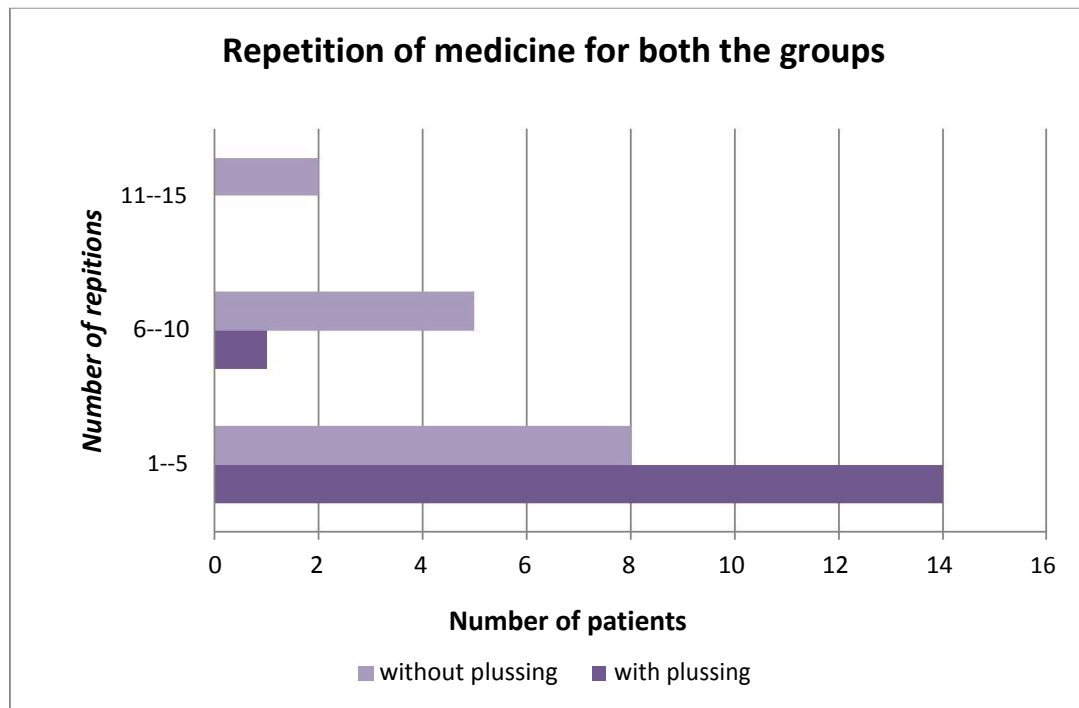
In group 2 patients there is decrease in temperature and becomes almost normal but the temperature has rose in the 96th and 108th hour and touched the normal in 120th hour. (Fig 6)

In group 1 the average 1st reading when the patients visited the hospital was 100.7333%, where the highest temperature noted was 103 F and the lowest was 99 F. During the 12th hour there is a drop of .95 F in which 101 F was seen as the highest temperature and lowest 98.6 F which is the normal body temperature. 3 patients (20%) have shown the normal temperature. Towards the 24th hour there is a fall of .45 F, in which the highest temperature recorded was 100 F. In the 36th hour there is a fall of .38 F. The highest temperature recorded was 99.8 F. In the 48th hour there is a fall of .21 F in the average temperature. 100 F is the highest temperature noted. In the 60th hour there is a drop of .05 F, the highest temperature recorded is 99.8 F. In the 72nd hour .05 F is dropped. The highest temperature noted is 99 F. After 84th hour all patients have touched normal temperature at 98.6 F. (Table 4, Table 6, Fig 6)

In group 2 the average 1st reading when the patients visited the hospital was 100.71%, where the highest temperature noted was 102.4 F and the lowest was 99 F. During the 12th hour there is a drop of .68 F in which 102 F was seen as the highest temperature and lowest 98.6 F. 2 patients (13.33%) have shown the normal temperature. Towards the 24th hour there is a fall of .53 F, in which the highest temperature recorded was 101 F. In the 36th hour there is a fall of .49 F. The highest temperature recorded was 100.8 F. In the 48th hour there is a fall of .2 F in the

average temperature. 99.8 F is the highest temperature noted. Except 2 patients (13.33%) every others have shown normal temperature. In the 60th hour there is a drop of .10 F, the highest temperature recorded is 98.8F. In the 72nd hour there is no difference in the average of temperature. In the 84th hour there is a fall of .02 F. All the patients have normal temperature during 84th hour but at the 96th hour there is a rise of .06 F. The highest temperature noted is 99 F and in the 108th hour there is again a rise of 0.06 F. The highest temperature noted is 100 F. After 120th hour all patients have shown normal temperature. (Table 5, Table 6, Fig 6)

FIG 7: Repetition of medicine for both the groups



The maximum number of repetition (11-15) was done where medicines were given without plussing, it was given for 2 patients (13.33%). 6-10 repeats were given for 5 patients (33.33%) without plussing and 1 patients (6.66%) with plussing. The minimum number of

repetition was 1-5 times. It was given for 14 patients (93.33%) with plussing and 8 patients (53.33%) without plussing. (Fig 7)

STAISTICAL ANALYSIS

The p-value of the t-test with plussing potency was found to be 0.000000016 (1.64×10^{-7}), which is smaller than 0.05%. Not only that the t-stat value of the analysis was 7.54, which is higher than t-critical value (1.70) which proves that the difference between the two sets is significant.

Similarly the p-value of the t-test over the treatment without plussing potency was 0.000000184 (1.84×10^{-7}) which is extremely smaller than 0.05, which shows that there is a considerable difference between two treatments at 95% level. More over t-stat value of the control group (without plussing) is 6.60, which is pretty higher than t-critical value (1.70), therefore the difference between the two scores are significant.

Among the case and control groups, the t-stat value of the case (with plussing) is higher (7.54) than t-stat value of control group (without plussing) which is 6.60; this indicates that medicines repeated in plussing method is better than the control type.

DISCUSSION

Acute febrile illness is characterized by the sudden increase in internal body temperature to levels above normal. Pyrogens (fever-producing substances) that occur outside the body include the following: Viruses, Bacteria, Fungi, Drugs and Toxins.

Children less than 5yrs are the common population showing acute febrile illness of unknown etiology. The incidence and epidemiology is undifferentiable, as it varies by season, geographic location, hygienic parameters, susceptibility of the population, etc. In infants, it can be associated with acute adenoiditis, acute bronchitis, tonsillitis etc. Besides infection, it can also be due to vaccination, overstraining or due to teething. In adults, it can be the result of bacterial and viral infection. Common causes of such conditions are urinary tract infection, exposure to animals, chronic inflammatory disease, lung problems, drug abuse etc.

Fever can be differentiated as: Low grade fever (When your body temperature is around 100 F – 101 F), High grade fever (body temperature is about 103 F – 104 F) and Dangerous range of temperature (when your body shows a temperature of more than 104 F)

Complications of dangerous grade fever may include Severe dehydration, Hallucinations, Fever-induced seizure (febrile seizure) due to central nervous system affection, in a small number of children ages 6 months to 5 years; shock etc.

Fever in most of the cases may be associated with symptoms such as headache, chills, joint pain, vomiting, skin rash, loose motion, weakness, cough and cold. ^[11]High fever with chills is commonly seen in people suffering from viral fever, malaria, bronchitis, tonsillitis, typhoid etc

The clinical conditions that cause high fever and headache are dengue, malaria, summer, food poisoning and HIV. Fever with joint pain is observed in viral fever, arthritis or dengue. Fever with vomiting is a common symptom of food poisoning, dengue, viral fever, malaria, typhoid, kidney infections and hemorrhagic fever. Fevers with skin rashes are quite common in case of clinical conditions such as dengue, HIV/AIDS, kidney disease, allergy and toxic shock syndrome. ^[15]

Some of the homoeopathic remedies which were given for fever in this study are:

Bryonia is given when warm weather sets in, after cold days, after taking cold or getting hot in summer, from exposure to draft, cold wind. [2] During fever the patient shows chill with external coldness, dry cough, stitches. Sour sweat after slight exertion and easy, profuse perspiration is noted. For *Bryonia* the complaints are worse during motion, exertion, touch, warmth. The patient cannot sit up, gets faint or sick or both. The patient feels better by taking absolute rest. [29]

Pulsatilla nigricans is mainly given to women and children. The characteristic feature of *pulsatilla* is the changability. [2] During fever the patient feels chilliness, even in warm room. There is now thirst. Chill about 4 pm. Heat in parts of body, coldness in other is a feature of *pulsatilla*. One-sided sweat there is pains during sweat. During apyrexia, there is headache, diarrhea, loss of appetite, nausea. The complaints are worse during evening, in a warm close room, on beginning to move, by eating very rich, fat, indigestible food, by warm applications and heat. [29]

Belladonna [Bell] is marked by erythrim, violent delirium, headache, throbbing carotids and cerebral symptoms. The skin is hot and burning; the heat seems to steam out from the body; it may be followed by a profuse sweat which brings no relief. The characteristics are briefly: General dry heat with chills, little or no thirst, in fact, the patient may have a dread of water, cool extremities and throbbing headache. The fever is worse at night.

Gelsemium [Gels] suits dull, stupid, apathetic conditions. The patient is dizzy and drowsy, the chill is partial; there is a full flowing pulse with an element of weakness in it. It corresponds especially to remittent types of fever and to fevers brought on by warm, relaxing weather. The fever is accompanied by languor, muscular weakness and a desire for absolute rest and is unaccompanied by thirst.

Rhus toxicodendron is given in adynamic fever. Restless and trembling can be noted. The remedy can be given for typhoid. During fever the tongue is dry and brown. Chilly, as if cold water were poured over him, followed by heat and inclination to stretch the limbs. [29]

Ars alb is characterized by great prostration, with rapid sinking of the vital forces and fainting. Coldness of the whole body, pale, sunken face, very sickly appearance, lips pale, rigor, pains in limbs, back and chest, breathing impeded, restless and trembling is noted. Along with chilliness colic and nausea, diarrhea, unconsciousness, drawing, tearing in limbs, thighs feel as if beaten, cramps and contraction in chest, difficult breathing, desire to urinate and frequent urination, hunger can also be seen. ^[1]

This study was done in an attempt to find out the advantages of plussing method over the repetition of medicine in the same potency. It is found that plussing method has shown wonderful results where the remedy did not produce the desired effect when given without plussing. Still this method is not commonly used. Some of the doctors who successfully practiced the plussing method were Dr. Hahnemann, Dr.Elizabeth Wright, Dr.T.P.Elias, Dr.kim Lane M.D, Dr. Colin B. Lessell, Dr.Deborah Staw etc.

MANAGEMENT

Due to fever and vomiting there will be fluid loss from the body which can be restored by rehydration. Adequate fluid intake such as oral rehydration solution (ORS), water, fruit juice, coconut water and other fluids containing electrolytes and sugar. Patients who are intolerable to oral fluids need intravenous fluid therapy; patients are advised to take bed rest and normal regular diet. In case of high fever, advise for continuous cold sponging, till temperature lowers (CCRH). The patients having high temperature should be admitted and kept under observation. The patient should be kept comfortable; the excess clothing should be removed. The ice water, ice packs, alcohol sponges and cold mattresses are avoided. During chills the wet blankets are replaced with warm and dry blankets (NCI). The patient is kept out of drafts and the room temperature is adjusted. If the high temperature is not controlled then the patient should be referred to higher center.

SUMMARY

The subjects of study were selected from those patients with acute febrile conditions attending outpatient department of the collegiate hospital, as per the inclusion criteria. A total of 30 cases were selected, coming under the age group of 5-60 years, including both sexes. These cases were diagnosed on the basis of clinical presentation.

The 30 cases taken were divided into two groups, as group 1 and group 2 with 15 patients (cases) each. Group 1 medicines were repeated in plussing method and group 2 medicines were repeated without plussing.

The study was intended with an aim of comparing the advantages of medicines given in plussing method and medicines repeated in the same potency. Assessment of symptoms associated with fever, like headache, body pain, malaise, chilliness, irritability, appetite, thirst, stool, sweat, bitterness of tongue was done before and after the treatment. Observations were made every 12 hourly till the fever subsided.

In group 1, the highest incident age group was 16-25yrs, having 5 patients (33.33%). In group 2 the highest incident age group was 5-15 yrs, having 7 patients in the age group. This group had 6 patients (40%) with temperature in the range of 98.8F to 100.6F during the admission and the highest degree of temperature recorded was 103 F and 99 F.

In group 2, a maximum of 6 patients (40%) were having temperature in the range of 99 F to 99.6F during the admission and the highest degree of temperature recorded was 102.4 F.

In group 1, a maximum number of 5 patients (33.33%) received the medicine *Bryonia alba*. Where as in group 2, a maximum number of 4 patients (26.66%) received the medicine *Pulsatilla nigricans*.

The first temperature was noted at the time of visit .Then the temperature is recorded every 12 hour. In group 1 patients, there is gradual decrease in temperature and is restored to the normal temperature. The temperature touches the normal line at 84th hour.

In group2 patients there is decrease in temperature and becomes almost normal but the temperature has rose in the 96th and 108th hour of treatment and touched the normal in 120nd hour.

The maximum number of repetition of medicine given in group 1 was 6-10 repeats for 1 patient. Whereas, the maximum number of repetition of medicine given in group 2 was 11-15 repeats for 2 patients.

CONCLUSION

This study shows that, when medicines given in plussing method gave better result than the medicine repeated with the same potency. There is no much repetition of potency in plussing method, because every time the medicine is repeated the potency is slightly increased than the former one. When the medicine is given without plussing it has to be repeated more often without the desired outcome. The time taken for the positive response in group 1 patients was very rapid and gentle than group 2.

REFERENCE

1. Allen H.C, MD, 2001, The Therapeutics of Fevers, P: 83- 89.
2. Allen H.C, MD, 2011, Allen's Keynote Rearranged and classified with Leading Remedies in Materia medica and Bowel Nosodes, 10th edition, B. Jain Publishers (p) Ltd, P: 66, 67, 250.
3. Elias T.P, Homoeopathic pharmacy, 6th edition, P: 92, 93.
4. Elizabeth Wright, 2011, A Brief Study Course In Homoeopathy, B. Jain Publishers (p) Ltd, P: 50, 51.
5. Homoeopathic heritage, vol-34, No-6, June 2009, B. Jain Publishers (p) Ltd, P: 72.
6. <http://abchomeopathy.com/forum2.php/13614/>
7. <http://hpathy.com/homeopathy-papers/frequently-asked-questions/>
8. <http://townsendletter.com/Febmarch2010/healhomeo0210.html>
9. <http://www.homeopathy2health.com/leela-article.htm>
10. <http://www.homoeopathyplanet.com/Audesapere/study%20room/library/libraryLMs2.html>
11. <http://www.mayoclinic.org/diseases-conditions/fever/basics/complications/con-20019229>
12. http://www.rubysemporium.org/homeo_approach_cancer.html
13. <http://www.similima.com/50-millesimal-scale-potency-a-critical-study-part-ii>
14. <http://www.slideshare.net/bipinjethani/plussing-method-of-remedy-administration>
15. http://www.thehealthsite.com/diseases-conditions/fever/001/?gclid=CMmpnunO_MQCFQsnjgodTaEA8w
16. <https://books.google.co.in/books?id=6lXbygsxTNcC&pg=PA52&dq=plussing+potency&hl=en&sa=X&ei=a5kjVdesIpGPuASMqYDADQ&ved=0CC4Q6AEwBDgK#v=onepage&q=plussing%20potency&f=false>
17. <https://books.google.co.in/books?id=8lI4y5oFp1cC&pg=PT497&dq=plussing+potency&hl=en&sa=X&ei=Hg4EVeP6J4PbuQTVk4L4Dg&ved=0CC8Q6AEwAw#v=onepage&q=plussing%20potency&f=false>
18. <https://books.google.co.in/books?id=e5yyKJUV8GAC&pg=PA194&dq=plussing+potency&hl=en&sa=X&ei=a5kjVdesIpGPuASMqYDADQ&ved=0CB8Q6AEwATgK#v=one>

- page&q=plussing%20potency&f=false
19. <https://books.google.co.in/books?id=EslrAwAAQBAJ&pg=PA47&dq=plussing+potency&hl=en&sa=X&ei=VpgjVeHoMMmNuASjroCIBg&ved=0CCMQ6AEwAQ#v=onepage&q=plussing%20potency&f=false>
 20. <https://books.google.co.in/books?id=h4NukJS7X84C&lpg=PA75&ots=gsxiMNRLM2&dq=plussing%20method%20in%20homeopathy&pg=PA74#v=onepage&q=plussing%20method%20in%20homeopathy&f=false>
 21. <https://books.google.co.in/books?id=N4vcU47mZfQC&pg=PA173&dq=plussing+potency&hl=en&sa=X&ei=3JcjVdGPIozjuQTawYCgCQ&ved=0CEwQ6AEwCA#v=onepage&q=plussing%20potency&f=false>
 22. <https://books.google.co.in/books?id=O5XvJRZPbWwC&pg=PA105&dq=plussing+potency&hl=en&sa=X&ei=VpgjVeHoMMmNuASjroCIBg&ved=0CB0Q6AEwAA#v=onepage&q=plussing%20potency&f=false>
 23. <https://books.google.co.in/books?id=QHi5hfvHo3UC&pg=PA50&dq=plussing+potency&hl=en&sa=X&ei=VpgjVeHoMMmNuASjroCIBg&ved=0CDsQ6AEwBQ#v=onepage&q=plussing%20potency&f=false>
 24. <https://books.google.co.in/books?id=qIK18JMASLIC&pg=PA83&dq=plussing+potency&hl=en&sa=X&ei=a5kjVdesIpGPuASMqYDADQ&ved=0CEgQ6AEwCTgK#v=onepage&q=plussing%20potency&f=false>
 25. James Tyler Kent, 2011, Lectures on homoeopathic philosophy, B. Jain Publishers (p) Ltd, P: 239.
 26. Roberts H.A, MD, 2010, The principles and art and cure of homoeopathy, B. Jain Publishers (p) Ltd, P: 144.
 27. Samuel Hahnemann, 2013, The Chronic Diseases their Peculiar Nature and their Homoeopathic Cure, B. Jain Publishers (p) Ltd, Preface to the third volume, P: 13.
 28. Samuel Hahnemann, 2011, Organon of medicine, 5th and 6th edition, B. Jain Publishers (p) Ltd, P: 122- 127.
 29. William Boericke , MD, 2013, Pocket Manual of Homoeopathic Materia Medica and Repertory, low price edition, B. Jain Publishers (p) Ltd, P: 134, 135, 539.

APPENDIX

Prescription: With Plussing Potency- Accompanying symptoms(Before)										
Op No.	Head Ache	Body Pain	Malaise	Chilliness	Irritability	Appetite	Thirst	Stool	Sweat	Bitterness Of Tongue
12218/14	2	2	0	0	0	0	1	0	0	0
4184/7	2	2	2	2	0	1	1	1	0	0
1327/12	0	0	0	2	0	0	0	0	0	0
13769/8	0	0	3	2	0	0	3	0	0	0
14649/14	0	0	0	2	0	1	1	0	0	0
7424/13	0	0	0		0	1	1	0	0	0
7761/6	0	2	2	2	0	0	3	0	0	0
6628/14	2	0	0	2	0	1	0	1	0	0
6619/09	2	0	3	0	0	1	0	0	0	0
9454/6	0	2	0	3	0	1	3	0	0	0
12526/8	2	3	1	0	0	1	1	0	0	0
5966/13	2	0	0	0	2	0	1	0	0	2
13940/8	0	0	0	2	2	0	3	0	0	0
6029/14	0	0	2	2	0	1	0	0	0	0
6660/14	0	0	2	2	0	1	3	1	0	0

Prescription: With Plussing Potency- Accompanying symptoms(After)										
Op No.	Head Ache	Body Pain	Malaise	Chilliness	Irritability	Appetite	Thirst	Stool	Sweat	Bitterness Of Tongue
12218/14	0	0	0	0	0	0	0	0	0	0
4184/7	1	0	0	1	0	0	1	0	0	0
1327/12	0	0	1	0	0	0	0	0	0	0
13769/8	0	0	0	0	0	0	0	0	0	0
14649/14	0	0	0	0	0	0	0	0	0	0
7424/13	0	0	0	0	0	0	0	0	0	0
7761/6	0	0	0	0	0	0	0	0	0	0
6628/14	0	0	0	0	0	0	0	0	0	0
6619/09	0	0	0	0	0	0	1	0	0	0
9454/6	0	0	0	1	0	0	1	0	0	0
12526/8	1	1	0	0	0	0	0	1	0	0
5966/13	0	0	0	0	0	1	1	1	0	0
13940/8	0	0	0	0	0	0	0	0	0	0
6029/14	0	0	0	0	0	0	0	0	0	0
6660/14	0	0	0	0	0	1	0	0	0	0

Prescription: Without Plussing Potency- Accompanying symptoms(Before)										
Op No.	HeadAche	Body Pain	Malaise	Chilliness	Irritability	Appetite	Thirst	Stool	Sweat	BitternessOfTongue
10530/14	0	2	2	2	0	1	3	1	0	2
08/15-	0	2	0	3	3	3	3	0	3	0
1405/15	0	0	0	2	3	1	0	0	0	0
14347/14	0	0	0	2	0	1	1	0	1	0
14284/14	2	0	0	2	0	1	1	1	0	0
13908/14	2	0	0	2	0	0	3	0	0	0
1366/13	3	2	0	0	0	0	0	0	0	2
14324/14	0	0	0	2	0	1	1	0	0	0
13709/14	2	0	0	2	0	1	1	0	0	0
8752/14	2	3	0	3	0	0	1	0	0	0
16559/6	3	2	2	2	0	1	1	0	0	0
14372/14	2	0	0	0	0	1	3	0	0	0
3317/10	0	0	0	0	0	1	0	3	0	0
11467/14	0	2	0	2	0	1	0	0	0	0
4972/8	0	2	2	2	0	1	3	0	0	0

Prescription: Without Plussing Potency- Accompanying symptoms(After)										
Op No.	HeadAche	Body Pain	Malaise	Chilliness	Irritability	Appetite	Thirst	Stool	Sweat	BitternessOfTongue
10530/14	0	0	0	0	0	2	1	0	0	0
08/15-	0	0	0	0	0	0	1	0	0	0
1405/15	0	0	0	2	2	0	0	0	0	0
14347/14	0	0	0	0	0	0	0	0	0	0
14284/14	0	0	0	0	0	0	0	0	0	0
13908/14	0	0	0	0	0	0	1	0	0	0
1366/13	2	0	0	0	0	0	0	0	0	0
14324/14	0	0	0	0	0	0	0	0	0	0
13709/14	0	0	0	0	0	0	0	0	0	0
8752/14	0	0	0	0	0	0	0	0	0	0
16559/6	1	0	0	0	0	0	0	0	0	0
14372/14	0	0	0	0	0	0	1	0	0	0
3317/10	0	0	0	0	0	0	0	0	0	0
11467/14	0	0	0	0	0	0	0	0	0	0
4972/8	0	0	0	0	0	0	2	1	0	0

Statistical Analysis of Scores

WITHOUT PLUSSING	
Before	After
13	3
17	1
6	4
5	0
7	0
7	1
7	2
4	0
6	0
9	0
11	1
6	1
4	0
5	0
10	4

WITH PLUSSING	
Before	After
5	0
11	3
2	1
8	0
4	0
2	0
9	0
6	0
6	1
9	2
8	3
8	3
7	0
5	0
9	1

WITHOUT PLUSSING	BEFORE	AFTER
Mean	7.8	1.133333
Variance	13.1714286	2.12381
Observations	15	15
df	28	
t Stat	6.60201109	
P(T<=t) one-tail	1.8403E-07	
t Critical one-tail	1.701130908	
P(T<=t) two-tail	3.6806E-07	
t Critical two-tail	2.048407115	

WITH PLUSSING	BEFORE	AFTER
Mean	6.6	0.933333
Variance	6.971429	1.495238
Observations	15	15
df	28	
t Stat	7.54253033	
P(T<=t) one-tail	1.6208E-08	
t Critical one-tail	1.701130908	
P(T<=t) two-tail	3.24161E-08	
t Critical two-tail	2.048407115	

