

# STUDY OF THE EFFICACY OF FERRUM GROUP IN THE HOMOEOPATHIC MANAGEMENT OF LRON DEFICIENCY ANAEMIA: A RANDOMIZED SINGLE BLIND PLACEBO CONTROL TRIAL

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## ABSTRACT

**Background:** Anaemia is a major public health problem in developing countries, contributing significantly to morbidity and mortality. Iron deficiency anaemia (IDA) is the most common type of anaemia worldwide. In developing countries like India, various causes like malnourishment, menstrual & other hemorrhagic disorders are the commonest causes affecting a larger segment of population. This study aimed at determining the efficacy of Ferrum group of homoeopathic medicines in the management of Iron Deficiency Anaemia, its prevalence, study of obstacles and other maintaining causes associated anaemia as well as to correlate the clinical approach to Iron Deficiency Anaemia with Homoeopathic Principles as laid down by Master Hahnemann & other stalwarts and to develop evidence based support on the efficacy of Ferrum group of Homoeopathic medicines in the treatment of Iron Deficiency Anaemia. **Conclusion:** Out of 30 cases included in the study female patients were shown high prevalence as compare to male. Total female in the study were 27 (90%). The highest prevalence was observed in the middle age group i.e. 31 years to 50 years of age i.e. 12 cases (40.00%). Amongst the thirty cases the nutritional & menstrual causes were observed to act as obstacles/ maintaining causes for the development of IDA i.e. 9 cases (30.00%). At the end of study utility of Ferrum group of medicines was observed which shows significant improvement.

**KEYWORDS:** Anaemia, Iron Deficiency Anaemia (IDA), Ferrum groups of remedies, Homoeopathic management, etc.

## INTRODUCTION

Iron is critical to most of the organisms for maintaining life. A child will grow well and will develop all the qualities to its fullest when it has optimum level of iron in his blood. The ability to acquire, store and utilize iron is a universal need for all organisms.

Anaemia is defined as lack of oxygen carrying capacity of the blood due to decrease in the quality or quantity of Haemoglobin or RBC's or both. WHO recommends that anaemia should be considered to exist in adults whose Haemoglobin levels are lower than 13g/dl in male and 12g/dl in females, Children aged 6 months to 6 years are considered anaemic at Haemoglobin level below 11g/dl and those aged 6 to 14 years below 12g/dl.

In India, dietary insufficiency/deficiency, hookworm infestation and lack of food fortification lead to a wide pervasiveness of iron deficiency anaemia in infants,

women and children. Anaemia goes undetected in many people, and symptoms can be small and vague. The clinical features being easy fatigability, tachycardia, palpitation, and tachypnea on exertion, and progressive skin and mucosal skin changes.

On an average, globally 50% of the anaemia is assumed to be attributable to iron deficiency. In developing countries like India, 30%-70% of the population is iron deficient. In conventional system of medicine, many of the iron preparations are given, but they have many side-effects such as constipation, nausea, anorexia, heartburn & diarrhea; where stool may appear dark in colour and in spite of regular iron supplementation, it has been observed that patient continues to be anaemic.

Iron deficiency during pregnancy is included in the National Health Programme. The Concept of healthy motherhood is the aim of twenty first century. Women

expect to go safely through the journey of pregnancy and childbirth. Women make the investment in motherhood and she expects a successful return as a healthy newborn. So the launch of the safe motherhood initiative 20 years ago was a significant milestone in global health.

Iron deficiency contributes to death and disability as a risk factor for Maternal and peri-natal mortality, and also has its direct contribution in cognitive impairment, decreased work productivity, and death from severe anaemia.

Homoeopathic system is based on natural principle of cure without producing any adverse effects. The selection of remedy is based upon the theory of individualization & symptom similarity by using holistic approach. This is the only way through which a state of complete health can be regained by removing all the perceptible signs and symptoms from which patient is suffering. The constitution and causation are considered supreme, primary and worthwhile.

Homoeopathy treats person as a whole. The aim of Homoeopathy is not only to treat iron deficiency anaemia but to address its underlying cause and individual susceptibility. So here is a sincere attempt to study the effectiveness of Ferrum group of homoeopathic medicines in the management of Iron Deficiency Anaemia along with dietary supplementation.

## AIMS AND OBJECTIVES

**Official Title:** "Study of the Efficacy of Ferrum group in the Homoeopathic Management of Iron Deficiency Anaemia: A randomized single blind placebo control trial"

**Aim:** To study the efficacy of Ferrum group in the Homoeopathic management of Iron Deficiency Anaemia

## Objectives

1. To study Iron Deficiency Anaemia in details.
2. To assess the role of Ferrum Group of Homoeopathic Medicines in Management of Cases of Iron Deficiency Anaemia.
3. To study obstacles and other maintaining causes in the treatment of Iron Deficiency anaemia.
4. To access the severity and consequences of the condition and to prevent the Complications of Iron Deficiency Anaemia.
5. To correlate the clinical approach to Iron Deficiency Anaemia with Homoeopathic Principles as lay down by Dr. Hahnemann & other stalwarts and to develop evidence based support on the efficacy of Ferrum group of Homoeopathic medicines in the treatment of Iron Deficiency Anaemia.

## MATERIAL AND METHODS

**Study Setting:** The study was conducted at SKH Medical College and hospital, Beed. Patients for the study were selected from the College & Peripheral

OPDs, IPD Department.

**Study Duration:** Patients registered From January 2016 to June 2017 were selected for the study. Each case was followed up to 6 months and more if required.

**Study Design (Type of Study):** A Randomized Single Blind Placebo Control Trial.

**Sample Size & Selection of Sample:** Approximately 30 cases were selected by simple random sampling technique. Selected 30 cases are divided in two groups i.e. Group A and Group B respectively. Both the group comprised 15 cases each.

- ❖ Group A (i.e. Treatment Group) were receive Ferrum Group of Homoeopathic Medicine along with Dietary Advice.
- ❖ Group B (i.e. Control Group) were receiving Placebo along with Dietary Advice.

## Inclusion/ Exclusion Criteria

### Inclusion criteria

- ❖ All cases of Iron Deficiency Anaemia in whom Ferrum group of remedies was indicated were included in the studies.
- ❖ Patient of varying age group, both sexes were included.
- ❖ In the given study, patients in which ferrum group of homoeopathic medicines are indicated were only included. However, in the second group of 15 cases, the patients in which placebo is to be prescribed and no other medication are to be done were selected randomly.
- ❖ Patients selected under placebo group were only given dietary advice. No medication whatsoever was allowed in this group of patients.
- ❖ All the cases were included after clinical examination, pathological investigations wherever necessary.

### Exclusion Criteria

- Cases with severe anemia (< 7) and other fatal & systemic complications were excluded.
- Patients in whom medicines other than ferrum group of homoeopathic medicines are indicated were excluded from the study.
- Patients with known immuno-compromised disease were also excluded.

## Selection of Tools

The diagnosis was made on the basis of ICD-10 Criteria. CBC including estimation of Haemoglobin was done in all cases. Determination of Mean Corpuscular Volume (MCV), Mean Corpuscular Haemoglobin Concentration (MCHC) and Total Iron Binding Capacity (TIBC) and Peripheral Blood Smear, Bone marrow study may be done wherever necessary.

## Brief of Procedure

The study was a randomized control study in which 30 patients were selected on the basis of simple random technique. After proper Case taking, examination and investigations, data was recorded in specially designed

case sheets. Homoeopathic medicines belonging to Ferrum group was prescribed to the patient as indicated after Repertorisation, as a single blind clinical trial with placebo control study along with dietary advice. During the course of study, the patients were regularly observed. The changes were noted in the specially prepared case sheet.

#### **Selection and Administration of Medicine:**

Homoeopathic medicines belonging to Ferrum group were prescribed to the patient as indicated after Repertorisation, as a single blind clinical trial with placebo control study along with dietary advice.

**Selection of Potency:** Selection of the potency was done based entirely upon the nature, seat and phase of disease, nature of medicine and “susceptibility” of the patient.

**Repetition Schedule:** The doses of the Medicine were repeated as per the need of case.

**Dietetic & Hygienic Measures:** Proper dietetic and hygienic measures were taken before administration of medicines, which are used as specific stimuli to rouse the vital force to react against the morbid agent and overcome their noxious influences.

**Follow-Up and Monitoring:** All the patients were advised to report at regular intervals varied according to the severity of symptoms presented by the patient and the potency of medicine used. Each case was followed up to 6 months or up to recovery of the patient, whichever occurs earlier to be included in the study. On reporting, the cases were analyzed properly and results was assessed through the clinical assessment of improvement.

**Statistical Techniques:** The descriptive statistics as Mean, Median, Standard Deviation, Range, Percentage or Proportion were applied to get the results.

#### **Data Analysis**

The data analysis were done by applying appropriate tests of significance Paired t test of proportions was applied at 5% and 1% level of significance.

#### **Outcome Assessment Criteria**

The treatment efficacy was assessed clinically and on the basis of comparing the investigation which done before starting the treatment and the investigation done at the time of subsequent follow-up.

**Evaluation parameters:** Change in clinical findings like the presenting symptoms & signs, changes in Hb% are the parameter for assessing recovered, improved and not improved criteria.

**Recovered:** General well-being of the patient and increase in Hb gm % above –50% of average improvement for a significant period.

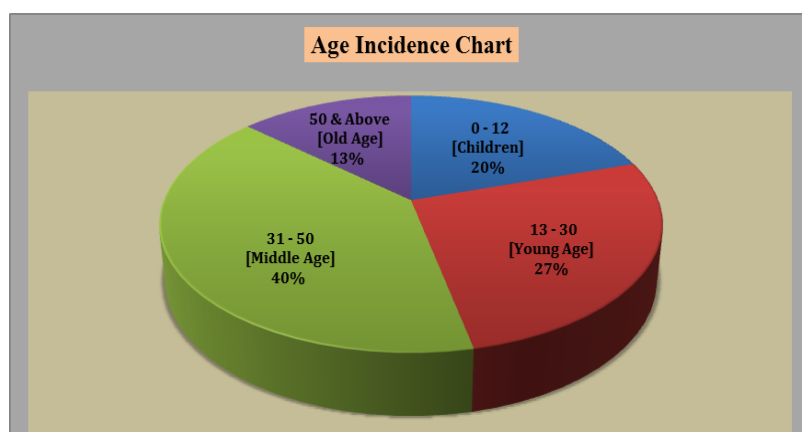
**Improved:** Rise in Hb gm% from 30-50 % of average improvement.

**Not improved:** Cases where there is no significant rise in Hb gm% or less than 30% of average improvement even after considerable period of treatment and till end of study period.

#### **RESULTS**

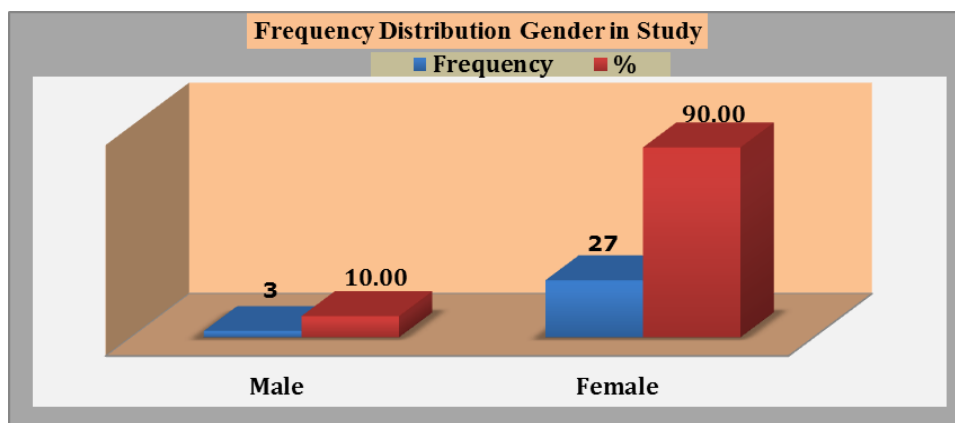
##### **A) Frequency Distribution of Age Incidence**

Age in Years	Frequency	%
0 - 12 [Children]	6	20.00
13 - 30 [Young Age]	8	26.67
31 - 50 [Middle Age]	12	40.00
50 & Above [Old Age]	4	13.33
<b>Total</b>	<b>30</b>	<b>100.00</b>



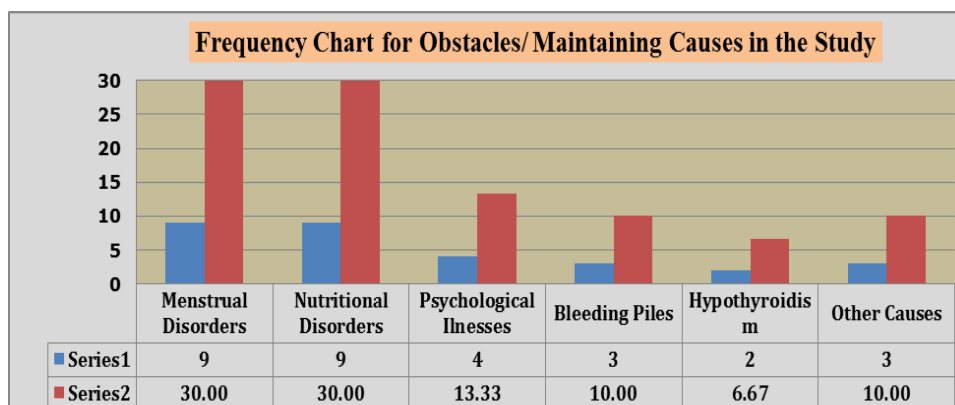
##### **B) Frequency Distribution of Gender in the Study**

Gender	Frequency	%
Male	3	10.00
Female	27	90.00
<b>Total</b>	<b>30</b>	<b>100.00</b>



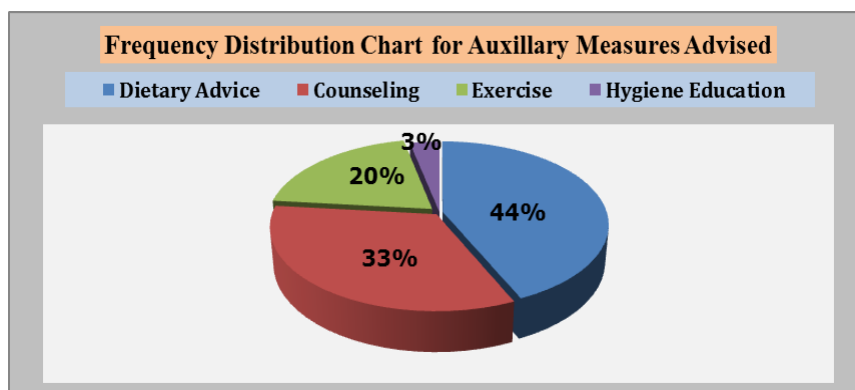
**C) Frequency Distribution Table For Obstacles/ Maintaining Cause**

Obstacle/ Maintaining Cause	Frequency	%
Menstrual Disorders	9	30.00
Nutritional Disorders	9	30.00
Psychological Illnesses	4	13.33
Bleeding Piles	3	10.00
Hypothyroidism	2	6.67
Other Causes	3	10.00
<b>Total</b>	<b>30</b>	<b>100.00</b>



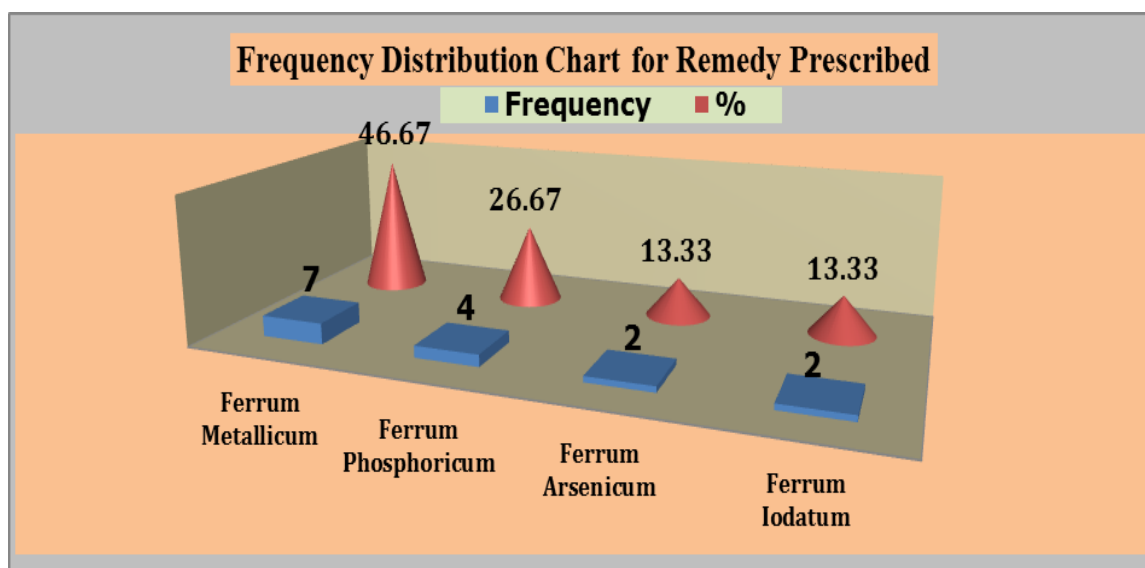
**D) Frequency Distribution Table For Auxillary Measures Advised**

Auxiliary Measures	Frequency	%
Dietary Advice	13	43.33
Counselling	10	33.33
Exercise	6	20.00
Hygiene Education	1	3.33
<b>Total</b>	<b>30</b>	<b>100.00</b>



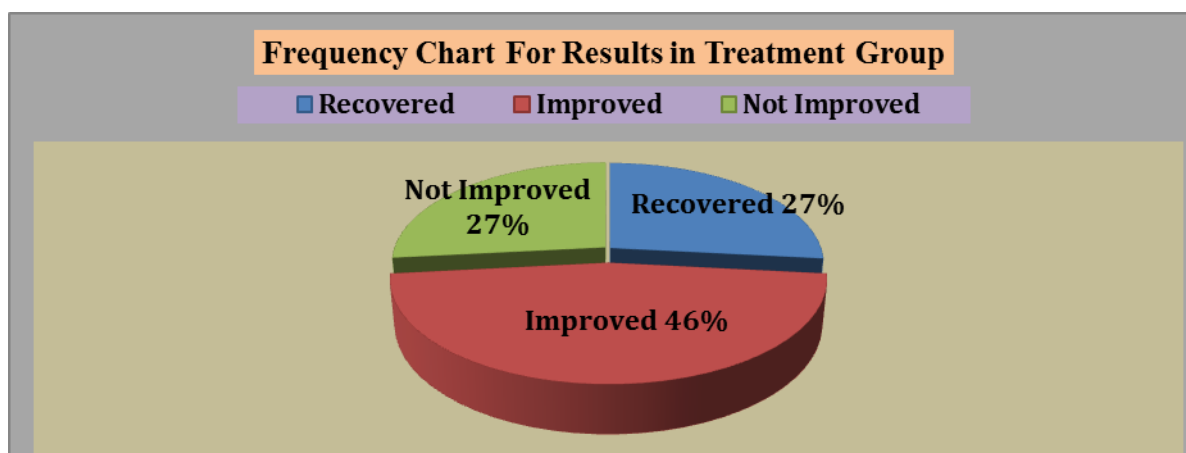
## E) Frequency Distribution For Remedy Prescribed (Ferrum Group) in Treatment Group

Remedy Prescribed	Frequency	%
Ferrum Metallicum	7	46.67
Ferrum Phosphoricum	4	26.67
Ferrum Arsenicum	2	13.33
Ferrum Iodatum	2	13.33
<b>TOTAL</b>	<b>15</b>	<b>100.00</b>



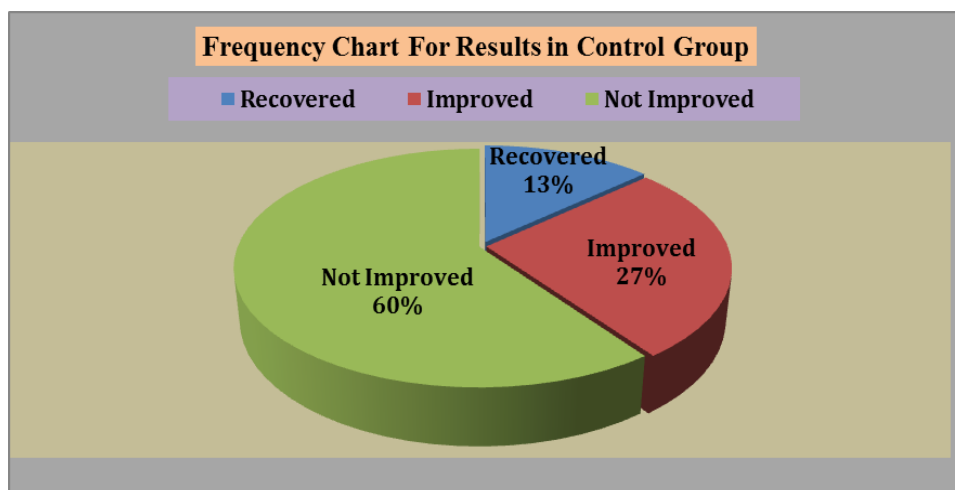
## F) Statistics Table For Overall Results in Treatment Group

Results	Frequency	%
Recovered	4	26.67
Improved	7	46.67
Not Improved	4	26.67
<b>Total</b>	<b>15</b>	<b>100.00</b>



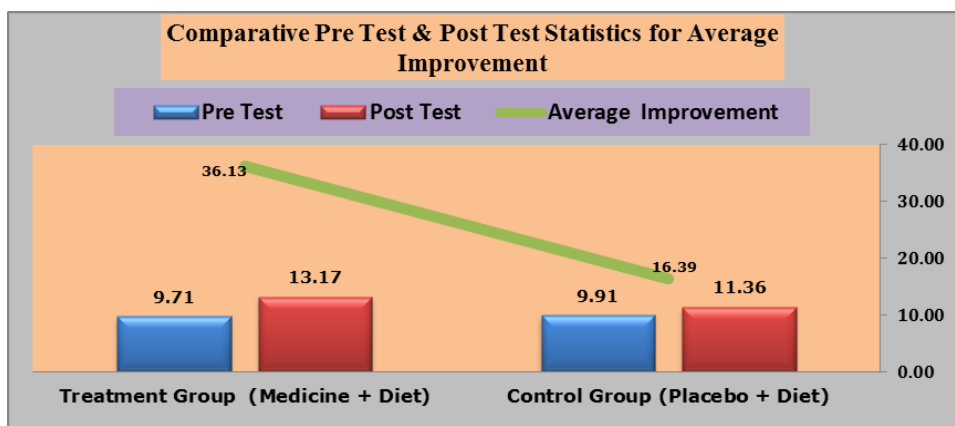
## G) Statistics Table For Overall Results in Control Group

Results	Frequency	%
Recovered	2	13.33
Improved	4	26.67
Not Improved	9	60.00
<b>Total</b>	<b>15</b>	<b>100.00</b>



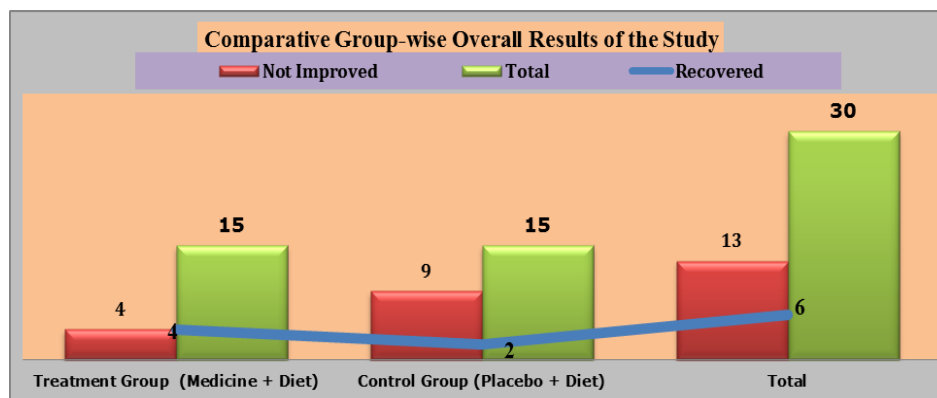
**H) Comparative Pre Test & Post Test Statistics Table For Average Improvement in Study:**

	Treatment Group (Medicine + Diet)	Control Group (Placebo + Diet)
Pre Test	9.71	9.91
Post Test	13.17	11.36
Average Improvement	36.13	16.39



**I) Comparative Group-Wise Overall Results of the Study**

Group	Treatment Group (Medicine + Diet)	Control Group (Placebo + Diet)	Total
Recovered	4	2	6
Improved	7	4	11
Not Improved	4	9	13
<b>Total</b>	<b>15</b>	<b>15</b>	<b>30</b>



The present study was carried out on 30 patients of varying age groups, different gender with detailed case studies and follow ups. The cases were divided into two groups as Treatment group in which only Ferrum group of homeopathic medicine and dietary advice were given, and Control group in which the Placebo as well as Dietary was administered. For the assessment of the clinical status before and after the treatment the score was used which is mentioned in the annexure-4. The score before and after the treatment was considered and paired t test was applied.

This study helps us to know the various presentations of Iron Deficiency anaemia in Population with its associated symptoms, the various stressors & forces, prevalence & the management of such types of cases with Ferrum Group of homeopathic medicines.

After studying 30 cases of Iron Deficiency anaemia following inferences was made after a statistical analysis of patients. *The results are, -*

- **Gender Distribution:** 90% female, 10% male.
- **Common Causes:** Menstrual disorders, nutritional issues, psychological illness, bleeding piles, hypothyroidism, multiple pregnancies, allergies, and UTIs.
- **Treatment Group Outcomes (15 patients)**
  - Recovered: 26.67% (4 cases)
  - Improved: 46.67% (7 cases)
  - Not improved: 26.67% (4 cases)
- **Control Group Outcomes (15 patients)**
  - Recovered: 13.33% (2 cases)
  - Improved: 26.67% (4 cases)
  - Not improved: 60% (9 cases)
- **Average Improvement**
  - Treatment Group: 36.13%
  - Control Group: 16.39%

## SUMMARY

Ferrum group of homeopathic medicines showed higher efficacy in improving symptoms and Hb levels in IDA patients compared to placebo. Homoeopathy was found to be a beneficial complementary approach in managing IDA.

## CONCLUSION

Iron Deficiency Anemia (IDA) is more prevalent in females, particularly in the 31–50 age group. Common symptoms include fatigue, irritability, poor concentration, appetite loss, and recurrent respiratory infections. Frequent clinical signs observed were pallor, tachycardia, and nail changes. Key contributing factors to IDA were menstrual and nutritional disorders, psychological issues, bleeding piles, hypothyroidism, multiple pregnancies, allergies, and recurrent UTIs. Psora was the dominant miasmatic background, while Sycosis was the fundamental miasm in most cases.

*Ferrum Met* was the most frequently prescribed homeopathic remedy, showing marked improvement. Other effective remedies included Ferrum Phosphoricum, Ferrum Arsenicum, and Ferrum Iodatum.

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