

Comparative Study Of Ferrum Phos 6x Versus Ferrum Phos 6x Along With Homoeopathic Medicine In The Management Of Anaemia – Randomized Controlled Trial In All Age Group

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Abstract

Background:- Anaemia is defined as a reduced hemoglobin concentration in blood below the lower limit of normal range, for the age and sex of individual. Normal hemoglobin level of new born at the time of birth is 14-22 % gm/dl, and in infant it is 9.5-13% gm/dl, normal adult hemoglobin lies between 13-16 % gm/dl in males, 11.5-15 % gm/dl in females. The aim of study is to compare Ferrum phos 6x and its combination with homeopathic medicine with the randomized controlled trial that homeopathy is somewhat worth for the treatment of anemia. So in this study the expected result was that the treatment of anemia with Ferrum phos 6x and Ferrum phos 6x along with homeopathic medicines will support in increasing HB level by 1 gm/dl.

Key Words- Ferrum phos 6x versus Ferrum phos 6x along with homoeopathic medicine in the management of anaemia

Introduction:

Anemia is defined as a reduced number of red blood cells (RBCs) or less than the normal amount of haemoglobin (Hb) in the blood⁽¹⁴⁾.

The clinical features of Anemia reflect diminish oxygen supply to the tissue. A rapid onset of Anemia (e.g. due to blood loss) causes more profound symptom than a gradually developing Anemia. Individual with cardiorespiratory diseases are more susceptible to symptom of Anemia. ⁽¹⁾

Rationale of the Study

The objective of this review is to assess the effects of Ferrum phosphoricum 6X in anemic patients". It has been mentioned in lectures on homoeopathic materia medica by Dr. J.T. Kent that homoeopathic medicine affect the economy and improves the assimilation of minerals .Thus researchers wants to observe and study the effect of Ferrum phos 6X alone with prescription of homoeopathic medicines as per homoeopathic principle followed by Biochemic Ferrum phos 6X medication this comparative study will be carried out with anaemic subjects for the duration of 2 years and will be monitored with haematocrit scale.

The need for study

In India Anemia is an important common health problem among women and children. There are multiple reasons for this condition like nutritional, physiological condition, pathological condition parasitic infestation etc. This disease is manifested with different clinical sign and symptoms. .In fact it is a

syndrome commonly identified at clinical and pathological basis. Thus researcher wants to learn the efficacy of Ferrum phos 6X and homoeopathic indicated medicine followed by Ferrum phos 6X.

Epidemiology

According to a World Health Organization (WHO) 53% of all women have Anemia as per the National Family Health Survey 2015-2016 in India. ⁽¹⁰⁾ Among this the prevalence of Anemia in all age group.

Anemia is one of the sixth WHO global nutritional target 2025 and diet related global NCD targets for 2025, endorsed by world health assembly in 2012 -2013 ⁽¹⁶⁾.

“Anemia is often neglected by people because they are blissfully unaware of it, or because they don’t take it very seriously. Many people tend to associate Anemia with iron deficiency, which is the most common but not the only cause of the condition.”⁽⁸⁾

Anemia affects 42% , 29 % , 36%, and 28% of children’s, adults, adolescent girls pregnant and non-pregnant women⁽¹⁵⁾.

Anemia could be due to various reasons such as a decrease in the normal number of red blood cells (erythrocytes), reduction in their haemoglobin level, or a drop in the oxygen carrying capacity of haemoglobin molecules owing to structural abnormalities. A decrease in the number of erythrocytes could be indicative of their excessive destruction, decreased production in the bone marrow, or actual loss through haemorrhages.

“Anaemic patients usually look pale and experience various symptoms due to poor oxygenation of the tissues. Fatigue, weakness, giddiness, headache, depression, irritability, breathlessness, palpitations, chest pain, decreased libido and hair loss are common manifestations of Anemia .Iron deficiency Anemia, the most common type, affects about 400 million women worldwide, often due to malnutrition and heavy bleeding during their menses. Nearly 60% Indian women lose hair due to low iron levels. In many cases, in spite of eating right, some patients exhibit deficiencies of certain nutrients such as vitamin B12, folic acid or iron, which are due to absorption problems.”⁽⁸⁾

Homeopathic remedies could be a ray of hope for such patients. While conventional treatment advocates the supplementation of deficient nutrients artificially, homeopathy recommends natural sources instead, namely eating fruits like Apples, Dates and Amla, and vegetables like Brinjal, Beetroot, Broccoli, and Spinach. Homeopathic remedies work towards removing or reducing the tendency of Anemia and tackling causative factors, rather than temporarily treating the condition or offering symptomatic relief. Ferrum phos, for example, is a homeopathic remedy for people with a tendency of low serum ferritin levels.

Homeopathy is one of the most widespread and most effective forms of complementary or alternative medicine. Although exact data on the frequency of use of homoeopathy in Anemia patients is not available, surveys among general practitioners, indicates that a significant proportion might seek additional advice from homoeopaths. The aim of this systematic review was to evaluate whether homoeopathic medicine Ferrum phosphoricum has a therapeutic action on Anemia because no systematic review has yet been done to evaluate the evidence regarding homoeopathic treatment strategies in Anemia.

Ferrum phosphoricum is a specific homoeopathic medicine for Anemia which increases the haemoglobin level and it also break the tendency of low serum ferritin levels in blood.

Research question

Is Ferrum phos 6x along with homoeopathic medicine is more effective than Ferrum phos 6x in the management of patients with Anemia in all age groups for 6 follow ups ?

Hypothesis (H1)

Ferrum phos 6x is more effective than Ferrum phos 6x along with homoeopathic medicine in the management of patients with Anemia in all age groups for 6 follow ups.

Null Hypothesis (H0)

Ferrum phos 6x along with homoeopathic medicine is more effective than Ferrum phos 6x in the management of patients with Anemia in all age groups for 6 follow ups.

Aim

Comparative study of Ferrum phos 6X versus Ferrum phos 6X along with homoeopathic medicine in the management of Anemia- Randomized Controlled Trial in all age groups.

Review of literature Anemia:

Anemia:

Definition: Anemia is defined as a reduced haemoglobin concentration in blood below the lower limit of normal range for the age and sex of the individual. ⁽³⁾

Normal hemoglobin level of newborn at the time of birth is 14-22 g/dl and in Infant it is 9.5 -13 g/dl

Normal adult hemoglobin lies between 13-16 g/dl in Males and 11.5-15 g/dl in females.

Classification of Anemia:

Anemia is classified by two methods:

A) Morphological classification.

- Normocytic Normochromic Anemia
- Microcytic Hypochromic Anemia
- Macrocytic Normochromic Anemia
- Macrocytic Hypochromic Anemia

B) Etiological classification:

- Hemorrhagic Anemia
- Hemolytic Anemia
- Nutrition deficiency Anemia
- Aplastic Anemia
- Anemia of chronic Disease

A) Pathophysiology

- 1) Anemia due to increased blood loss.
 - a) Acute post-hemorrhagic Anemia
 - b) Chronic blood loss
- 2) Anemias due to impaired red cell production.
 - i) Cytoplasmic maturation defects.

- ii) Nuclear maturation defects.
- iii) Defect in stem cell proliferation and differentiation.
- iv) Anemia of chronic disorder.
 - v) Bone marrow infiltration.
 - vi) Congenital Anemia.
 - vii) Anemias due to increased red cell destruction (Hemolytic Anemias).⁽³⁾
- 3) Unbalanced cell growth – Retarded DNA synthesis normal RNA synthesis results in impaired cell division of erythroid precursor.
- 4) Ineffective erythropoiesis – Few red cells are formed because intramedullary death of intermediate and late megaloblast .
- 5) Hemolytic components- Late normoblast dies in bone marrow because of mild hemolytic process⁽⁸⁾

Aetiology:

Due to blood loss:

Acute Blood loss - Trauma, post-Partum bleeding

Chronic blood loss - hook worms, bleeding peptic ulcer, Hemorrhoids,

Excessive menstrual blood loss.

Due to deficiency of: iron, Vit b12, folate

Toxic factors: drugs leading to aplastic Anemia.

Marrow invasion: leukemias, fibrosis, secondary carcinoma.

Marrow failure: hypoplastic, aplastic Anemia

Maldevelopment: sideroblastic Anemia, haemoglobinopathies like sickle cell diseases and thalassemia

Acquired disorder: immune toxic, mechanical or infectious causes

Clinical features:

Signs:

- i) Pallor of skin, oral mucus membrane, nail beds and Palpebral Conjunctiva.
- ii) The palmar creases become as pale as the surrounding skin when the hemoglobin is below 7 g/dl.
- iii) Edema
- iv) Ejection systolic murmur best heard over pulmonary area
- v) Ventricular dilatation and signs of cardiac failure.

Symptoms:

- i) Fatigue, lassitude, dyspnea, palpitation
- ii) Dizziness, headache, sleep disturbances, lack of concentration
- iii) Throbbing in head and ears, paresthesia in finger and toes
- iv) Anorexia indigestion, nausea, bowel disturbances
- v) Angina, intermittent claudication, transient cerebral Ischemia
- vi) Symptoms of cardiac failure
- vii) Amenorrhea, polymenorrhoea
- viii) Fast or irregular heart beat⁽¹³⁾.

General management:

- 1) Proper treatment of infection and cardiac failure (10)
- 2) In significantly symptomatic and severely anemic patient.
- 3) Packed cells are preferred.
- 4) Care has to be taken to avoid circulatory overloading especially in elders.
- 5) Patients intravenous furosemide 20 mg may be given prior to infusion

Effect of Anemia on the circulatory system

Hypoxia due to diminished transport of the oxygen by the blood causes the tissue to dilate, allowing further increase in return of blood to the heart, increasing the cardiac output to a still higher level. Thus, one of the major effects of the Anemia is greatly increased work load on the heart⁽⁴⁾.

Ferrum phosphoricum

Common name- phosphate of iron

Chemical formula-FePO₄

Chemical properties-it is prepared by mixing sodium phosphate with sulphate of iron in certain proportion the resulting precipitate is filter washed and dried and rubbed to a powder which is bluish grey with exposure to the air without odour or taste. Soluble in acids but insoluble in alcohol and water. It is probably this phosphate which is capable of turning blue, which occurs in the lungs in phthisis in bluish pus and expectoration⁽¹⁹⁾.

Physiological chemical data-“ Ferrum phosphoricum is a specific homeopathic medicine for Anemia, which increases the hemoglobin levels and also breaks the tendency of low serum ferritin levels in blood, Ferrum phos attracts the oxygen which gives tonicity to circular fibers of vessels to contract and thus equalizing the circulation and also has action on intestinal villi to absorb nutrients and micronutrients and reduction in iron intolerance, thus Ferrum phos improves iron absorption from dietary sources or iron supplements and increases hemoglobin levels.”

General biochemical action - Its field of action is in all ailments of hyperemic or congestive nature with usual accompaniment of this condition such as pain, heat, swelling, and redness, Anemia, etc.⁽¹⁹⁾.

Ferrum phos helps to make hemoglobin that carries oxygen throughout the body, thus it is commonly prescribed to treat fatigue and Anemia and to reduce hemorrhage.

“There is a want of red blood cells in system, this remedy by its power of attracting oxygen and coloring red to new blood cells.”⁽¹⁰⁾

In very stubborn cases sometime Ferrum phos may serve better than Ferrum met.⁽⁹⁾

Ferrum phos is a haemoglobin enhancer. Ferrum Phos is the most frequently used Homeopathic medicine to increase the haemoglobin level. It can be safely used among people of all age groups. Even during Anemia in pregnancy “,Ferrum Phos is a safe Homeopathic remedy though the dosage is to be properly handled by the physician during pregnancy”.⁽¹¹⁾ The skin appears pale in persons needing Ferrum Phos and they also experience palpitation of heart and weakness. The pulse rate is quickened. Vertigo and headache also appear as symptoms. Ferrum Phos is also the best remedy for controlling sweat in anemic patients especially at night.⁽⁶⁾

Role of Homoeopathy in Anemia Dr. Jignesh J Doshi*, Dr. Pranav Shah, Dr. Girish Patel*****(National Journal of Integrated Research in Medicine)

The medicines were prescribed on the basis of the similarity between the totality of symptoms of a given case and symptoms of the remedy prescribed. The Potency selection and repetition was adjusted according to the susceptibility and requirement of the case Result: 57% of the cases were cured, 23% of the cases were improved and 20% of the cases were not improved⁽¹⁷⁾.

Ferrum phosphoricum 3X and Ferrum metallicum 3X in the treatment of iron deficiency Anemia in children: Randomized parallel arm study

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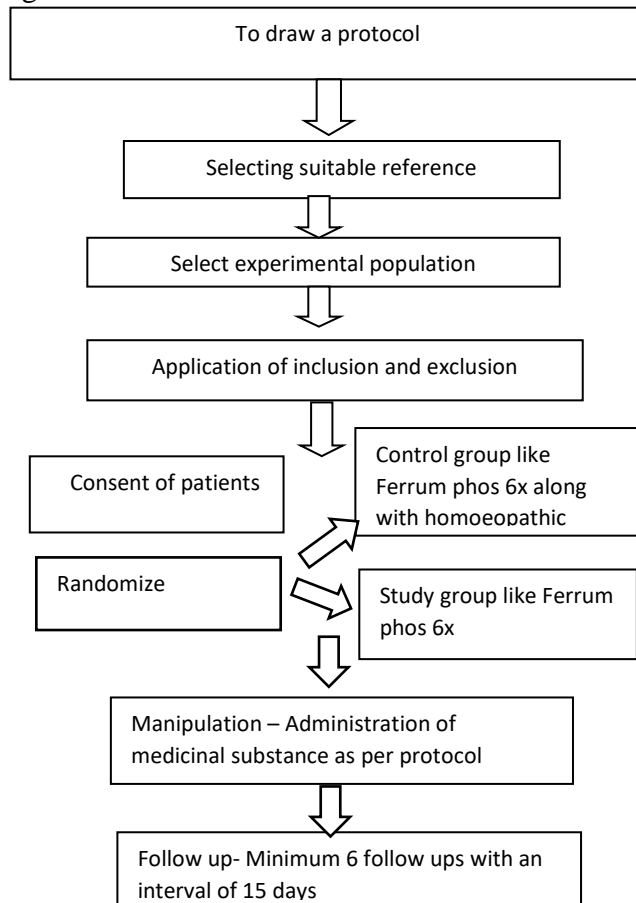
Results: 2,878 children were screened and 792 (27.5%) were identified to have Hb between ≤ 11.9 g% and ≥ 8 g%. 102 (mild Anemia: FP-30; FM-29, moderate Anemia: FP-21, FM-22) were enrolled after investigations and consent. Significant increase in Hb was seen in children with moderate Anemia in FP group (9.95 ± 0.749 – 10.97 ± 1.51). Increase in Hb in other groups was not significant⁽¹⁸⁾

Objectives:

1. To find out the effectiveness of the homoeopathic medicine with Ferrum phos 6x versus Ferrum phos 6x alone with statistical study.
2. To identify the commonly prescribed homeopathic medicine in cases of Anemia.

Materials and methods:

1. Type of study design –Randomized controlled trial⁽⁷⁾



2. Setting (Location of study)- M(N)HMC OPD
3. Duration of study : Minimum 6 follow ups at an interval of 15 days
4. Method of selection of study subjects (Eligibility criteria)-
 - a. Inclusion criteria -
 - i. All age groups
 - ii. Sexes : Both sexes
 - iii. Nulliparous and multiparous women
 - iv. All forms of Anemia
 - v. Hb less than 12gm/dl
 - b. Exclusion criteria –
 - i. Pregnant and lactating women’s.
 - ii. Patient taking other than homoeopathic medicine.
5. Operational definition :Anemia is a condition characterized by decrease in the
 - a. Hemoglobin (Hb) concentration
 - b. Reduction in RBC count
 - c. Reduction in packed cell volume.⁽²⁾
6. Specification of instruments and related measurements – Haemoglobinometer

Research and methodology specified and explained for data collection –

1. Sample size :75
2. Sampling technique :Convenience sampling technique
3. Methods for data collection: M(N)HMC OPDD
4. Investigations: complete blood count :- 1st investigations at the time of case taking, then 2nd after last follow up.

Discussion:

In our study we have considered heterogenous population including all age groups, both sexes , and rural and urban population in our study group of 75 patients, we were having 5.33 % Male and 94.66 % Female. In our study group

Sr. No.	Male in %	Female in %
1	5.33%	94.6%

we had the age group 21-40 years had 69.33 maximum percentage. We have recorded the cases in case record format, as per our study we got underlined pathology like rectal complaints, menstrual complaints and nutritional disturbances. Irrespective of causes of Anemia we have considered these cases not objective to find out.

In our study group we have studied the role of homoeopathic and biochemic medicines and tried to learn statistically. The aim of this study is to compare the role of Ferrum phos 6x and Homoeopathic medicine with the Ferrum phos 6x with the help of randomized controlled trail. As per the percentage homoeopathic medicine along with Ferrum phos 6x is having 48.57 percentage which is more than Ferrum phos 6x alone

i.e. 35% percentage .As per the statistical study we have learn there is no much statistical significance in both the groups.

Result:

As per Prescribed medicine Ferrum phos 6x in group “A”

In 14 out of 40 patient improvement in the level of Hb by 1 gm/dl was seen

In 26 out of 40 patient no improved in the level of Hb by 1 gm/dl

As per Prescribed homoeopathic medicine along with Ferrum phos 6x in group “B”

In 17 patients out of 35 patients improvement in the level of HB by 1 gm/dl was seen

In 18 patients out of 35 patients no improvement was seen in the level of HB by 1 gm/dl

As per homoeopathic remedies after repertorization on similia principle, Natrum mur was found to be the most used remedy by the study subjects. Its frequency i.e. total no. of individuals was found to be 6 for Natrum mur. Nux vom, Sepia, Pulsatilla and Bryonia were the second most remedies used by the study subjects and their frequency was 3 for each remedy. Other remedies was also prescribed accordingly

Graphical Presentation-

Table No-1 Sex ratio in Percentage

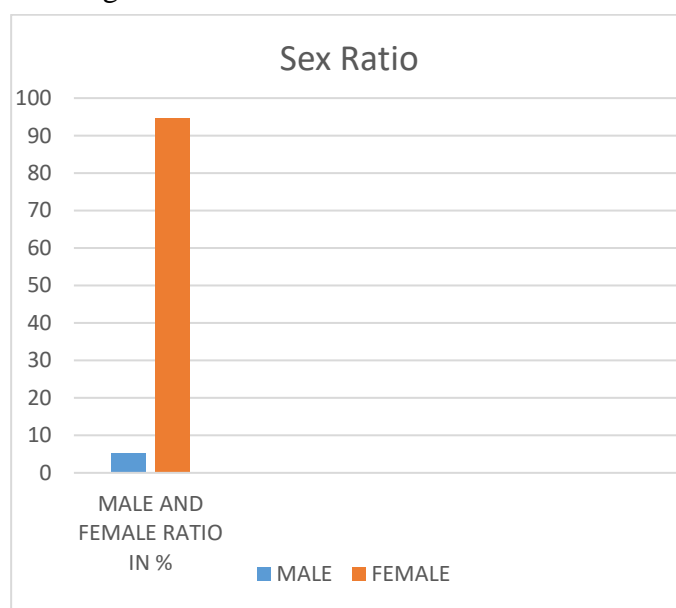


Fig. -1 Sex ratio in Percentage

Table No -2 Age distribution in Percentage

Sr No.	Age Criteria (in years)	Percentage
1	0-20	12%
2	21-40	69.3%
3	41-60	13.3%
4	61-80	5.3%

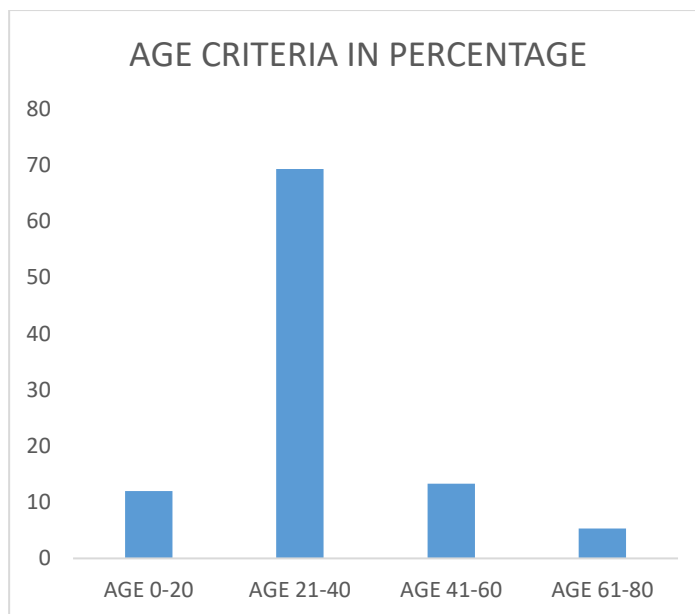


Fig.- 2 Age distribution in Percentage

Homoeopathic medicine prescribed to patients in percentage.

Fig.-3 Homoeopathic medicine prescribed to patients in percentage.

Observation:

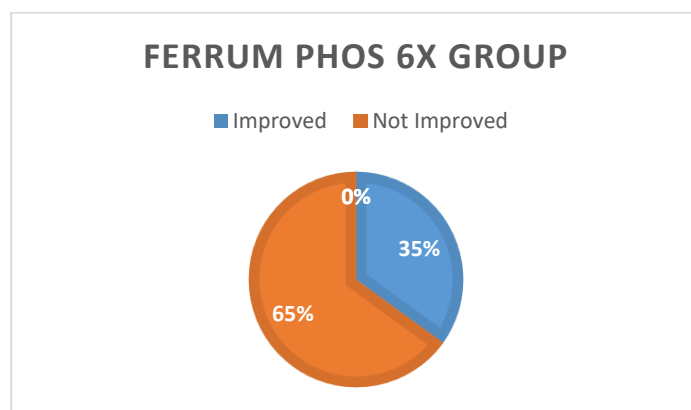
75 patients were included in our study

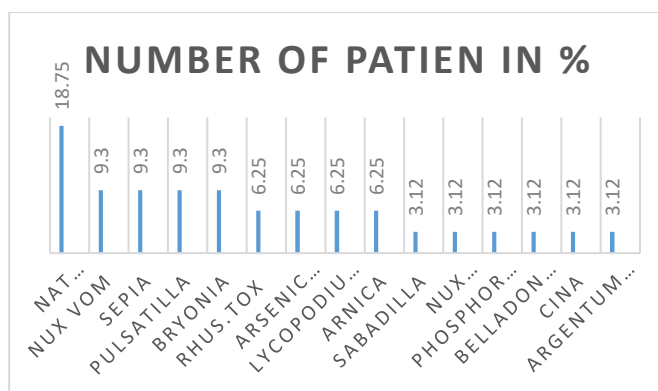
Apart from these 22 patients were previously included in this study but due to some reasons, we had to exclude them from this study.

	Improved level of Hb by 1 gm/dl	Not improved level Of Hb by 1 gm/dl
Ferrum Phos 6X	14 (35%)	26(65%)
homoeopathic medicine + Ferrum Phos 6X	17(48.5%)	18(51.4%)

1) Improved level of HB – Improved by 1 gm/dl

2) Not improved level of HB – Not improved by 1 gm/dl





Ferrum phos 6x	Ferrum phos 6x with homoeopathic medicine
Improved -O=14 E=16.4/- 2.4	Improved -O=17 E =14.35/2.65
Not improved -O=26 E=23.2/2.8	Not improved -O=18 E=20.3/-2.3

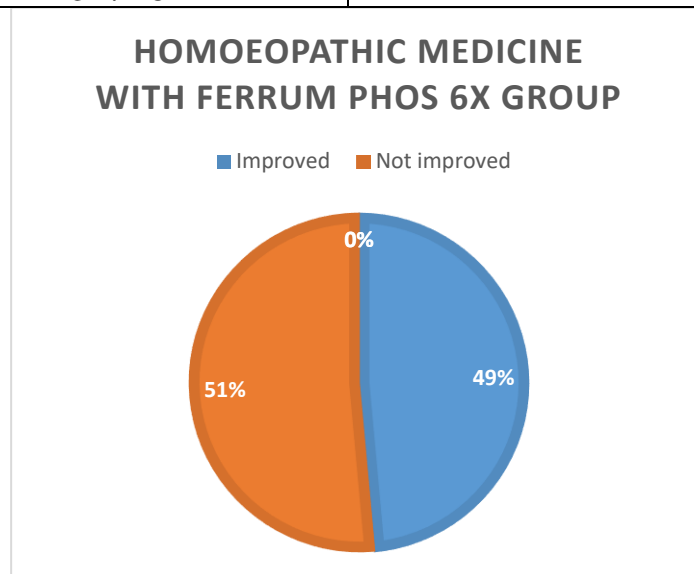


Fig.- 4.2

Statistical data according to chi square test-

	Improved	Not improved	Total	Improved in %	Not improved in %
Ferrum phos 6x	14	26	40	35.00%	65.00%
homoeopathic with ferrum phos6x	17	18	35	48.57%	51.43%
Total	31	44	75		

Improved proportion = $31/75=0.41$

Not improved proportion = $44/75=0.58$

Expected Improved proportion of ferrum phos 6x = $40 \times 0.41=16.4$

Expected Not improved proportion of ferrum phos 6x = $40 \times 0.58=23.2$

Expected Improved proportion of ferrum phos 6x with homoeopathic medicine = $35 \times 0.41=14.35$

Expected Not improved proportion of ferrum phos 6x with homoeopathic medicine = $35 \times 0.58=20.3$

Applying X^2 test-

$$X^2 = \sum (O-E)^2/E$$

$$X^2 = (-2.4)^2/16.4 + (2.8)^2/23.2 + (2.65)^2/14.35 + (-2.3)^2/20.3$$

$$= 5.76/16.4 + 7.84/23.2 + 7/14.35 + 5.29/20.3$$

$$= 0.351 + 0.337 + 0.487 + 0.260$$

$$= 1.43$$

Degree of freedom = $(c-1)(r-1)$

$$= (2-1)(2-1)$$

$$= 1$$

X^2 = The value of calculated x^2 is 1.43 at 0.05 i.e. table value of x^2 is 3.84

A small p (< 0.05) rejects the null hypothesis

A large p (> 0.05) means the alternate hypothesis

P value = 0.2317 i.e. > 0.05 that it is alternate Probability value calculated by calculator

hypothesis

Interpretation - The calculated x^2 value is 1.43 which is far below than the table value i.e. 3.84

at 0.05. Therefore we conclude that the null hypothesis is accepted.

The effectiveness of both the medicine has no much difference or significance statistically.

Conclusion:

Objective	Conclusion
To find out the effectiveness of Homoeopathic medicine with Ferrum phos 6x versus Ferrum phos 6x alone with statistical study	-As per the percentage the rate of improvement is 48.5% in the group of homoeopathic with Ferrum phos 6x. in group of only Ferrum phos 6x the rate of improvement is 35%. Thus we conclude from this that the rate of improvement is higher in Homoeopathic medicine with Ferrum phos 6x than Ferrum phos 6x only -To compare the result statistically we have use X^2 test and calculated p value as per this test there is no significant statistical difference between this 2 groups Chi square value-1.43 P value-0.2137

To identify the commonly prescribed homoeopathic medicine in cases of anemia

As per our study material and the medicine administered we have used the following medicine
 1.Natrum Mur-18.75%
 2.Nux Vomica-9.3%
 3.Rhustox-6.25%

Conclusion-

-As per the percentage the rate of improvement is 48.5% in the group of homoeopathic with Ferrum phos 6x.in group of only Ferrum phos 6x the rate of improvement is 35%.Thus we conclude from this that the rate of improvement is higher in homoeopathic medicine with Ferrum phos 6x than Ferrum phos 6x only

-To compare the result statistically we have use X2 test and calculated p value as per this test there is no significant statistical difference between this 2 groups

Chi square value-1.43

P value-0.2137

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