



EXPLORING THE EFFECT OF FERRUM PHOSPHORICUM 6X ON HAEMOGRAM IN IRON DEFICIENCY ANAEMIA

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ABSTRACT:

Iron deficiency anemia (IDA) is one of the most commonly seen anemia. If it is not repaired, the morbidity has reduced working capacity and increased susceptibility to infections, the prevalence of iron deficiency is the most common disease of deficiency around the world. The role of constitutional approach in the homeopathic management of IDA is well known. There is no properly documented study of Ferrum Phos role in IDA in adults. So specific parameters of HB, RBC, PCV, MCV, MCHC, MCH, RBC Morphology, Tibc, s. Iron, Sr. Ferritin, and the effect of the phosphorus 6x Ferrum, which was observed for 8 weeks before it would not make it before 8 weeks for 8 weeks than 8 weeks for 8 weeks. Rural background. All patients received a Ferrum Phos 6x QDS 1 tablet that caused a statistically significant increase in HB%. On average, in all cases, we could see that 0.62% of HB was increased, with a panel test showing a significant result.

The rate of HB increase, albeit slower than conventional hematinics.

KEYWORDS: Ferrum Phos, Iron deficiency anaemia, Haemogram, Homeopathy and Homeopathic Medicine.

INTRODUCTION:

Anemia is a wide spread and a very serious global problem of public health affecting development - 42% and developed countries - 9%, with the main consequences for human health. Anemia is the second main cause of disability in the world. It occurs in all stages of life, but predominantly in young children - 47% and pregnant women - 42%. The estimated prevalence of anemia around the world is 25%. In India it is about 74.3%. India is one of the countries with a very high prevalence of anemia in the world.

Iron deficiency anemia (IDA) is one of the most commonly seen anemia. If it is not repaired, the morbidity has reduced working capacity and increased susceptibility to infections. Globally 50% of the anemia can be attributed to iron deficiency and its mortality is approximately 841,000 deaths per year around the world. API Text Book of Medicine 6. The edition mentions that the prevalence of iron deficiency is the most common disease of deficiency around the world. In India, it is broadly predominant, with 20% of adult men, 40% of children and adults who are not pregnant, and 80% of pregnant women who are affected. According to

Estimates W.H.O, prevalence of nutritional anemia in India is 76% in preschool children, 50% in school children, 15-25% in men, 50-80% in women and 70-90% in pregnant women.

IDA was considered a disease of poor people, but nowadays, whether poor or rich, someone may be influenced for various reasons. The causes of the deficiency include- increased iron demand as in pregnancy, increased iron loss, as shown in children due to infestation that grows in India, reduced iron intake as in poverty, various misconceptions of food, religious habits, defective lifestyle, etc. I have seen a lot of cases where the income is normal, but the system is not able to properly use trades due to the problem of the constitution. These patients improve institutional treatment or supplements as it may require. In our institute of Ferrum Phos 6x in IDA during prenatal care in a rural population in a single-blind randomized placebo control trial: pilot study-where patients received Ferrum ph 6x and iron supplements, which is also conclusion only in the average HB group worth 0.23 GMS% in 0.23 GMS%.

Iron deficiency is a condition starting to reduce tissues into the phase of exhausted tissues, which reduces HB, in different organs and systems in the body. This condition (anemia) therefore becomes a disease - a disease of iron deficiency. In this state, not only tissue administration is threatened, but also proliferation, growth, differentiation, myelinogenesis, immune function, energy metabolism and absorption, leading to abnormal growth and behavior, mental retardation, reduced heart performance and work efficiency and greater risk of death.

In most cases, IDA is an iron and folic acid supplement, a change in diet and the fortification of foods of the main approaches by a conventional medical system. Along with the replenishment of iron, other medicines are also prescribed to correct underlying problems- eg deworming in cases of worms infestation. These drugs are not only expensive, but also cause side effects such as constipation, nausea, vomiting, headache, etc. and are not well tolerated

by everyone. This line of treatment is most temporary because the basic problems that have not been solved. Thus, despite all these interventions, anemia has not been observed for a long time.

In many cases, I saw the need for iron replenishment. Schussler, inspired by the theory of Rudolf Virchow, that the cell was the basic seat of the disease and the manifestations of the disease were the expression of abnormalities that occurred in the cells, and Moleschott, who was a physiologist, pointed out that the structure and vitality of organs depend on the presence of inorganic components. These theories applied to homeopathy and brought a biochemical system of medicine as a shot of homeopathy. I was also a student of clinical medicine, I would like to study the effect of a specific drug at the level of symptoms, ie laboratory indicators of anemia. I would like to perform my study to explore whether specific corrective measures help in repairing anemia or not. Iron deficiency can be estimated by hemogram, which includes HB (hemoglobin), MCV (average corpuscular volume), MCHC (average concentration of corpuscular hemoglobin), MCH (average corpuscular hemoglobin), number of RBC, RBC, s. Ferritin, Sr. Iron.

As already mentioned, the prevalence of iron deficiency is on the upper side in India compared to other countries. Also, religious orthodox beliefs, such as fasting, delay certain healthy nutritional foods such as green leafy vegetables in certain months of the year, etc. It affects the population, thus helping to contribute to cases of anemia. In the case of treatment, very few people come to the doctor in the case of iron deficiency anemia and many others remain undetected. It is therefore urgently necessary to intervene and treat people suffering from such conditions with regard to the complications that occur, the reasons are insufficient or defective nutrition and physiological requirements at a certain stage or epoch of life..

REVIEW OF LITERATURE:

Anemia is a wide spread and a very serious global problem of public health affecting development - 42% and developed countries - 9%, with the main consequences for human health. Anemia is the second main cause of disability in the world. It occurs in all stages of life, but predominant in young children - 47% and pregnant women - 42%. The estimated prevalence of anemia around the world is 25%. In India it is about 74.3%. India is one of the countries with a very high prevalence of anemia in the world.

Anemia is defined as the level of hemoglobin in serum or hemocrit less than the expected age and gender corresponding to the normal person. According to WHO criteria are to define anemia:

Adult men	Haemoglobin concentration- <13g/dl or 130g/L	Haemocrit <39
Adult women	Haemoglobin concentration- <12g/dl or 120g/L	Haemocrit <37

Most of the patients are unaware of anaemia until and unless investigated. On investigation will come to know that they are anaemic. Mild and moderate cases are generally anaemic.

Anemia can be classified in relation to morphological appearance and quantitative abnormality of red blood cell size (MCV), hemoglobin (MCH) content, hemoglobin concentration (MCHC).

Classification:

I. In principle caused by impaired production:

A.

1. Aplastic anemia
2. Pure Aplasia of Red Articles
3. Anemia of chronic kidney failure
4. Lack of endocrine

B. Disorders of proliferation and maturation of differentiated cells

1. Defective DNA synthesis (vitamin B12, folic acid and metabolic defects in the metabolism of purine and pyrimidine)
2. Faulty synthesis of hemoglobin:

A. - Globin Synthesis - Thalassemie

b. - Synthesis Heem - Anemia of Iron deficiency

C. - Sideoblastic anemia

3. The malnutrition of the protein

4. Anemia of chronic infections or inflammatory disease

5. Myelophthisic anemia due to infiltration or bone marrow replacement

II. Mainly caused by a shortened survival of red blood cells (increased destruction degree):

A. Internal or abnormalities of red articles:

1. Membrane disorders

A. Inherited cell disorders, shape, spherocytosis, ellipticytosis and deomatocytosis.

b. Inherited disorder of membrane lipid synthesis

C. Paroxysmal Night Hamoglobinopathy

2. Disorders of metabolism of red cells

3. Congenital or inherited deficiencies of the enzyme

- B. External or extra erythrocyte abnormalities
 - 1. Plasma factors
 - i. Destruction mediated by antibody
 - II. abolition of cholesterol or plasma lipids
 - 2. Physical factors (heart, microangiopathic, burns)
 - 3. Chemical or toxic agents
 - 4. Bacterial or other organisms
 - 5. Reticulo endothelial sequestration.
- III. Blood loss anemia (acute or chronic) morphological classification of anemia:
 - 1. Macrocytic
 - A. Megaloblastic erythropoiesis
 - b. Liver disease and obstructive jaundice
 - C. Reticulocytosis
 - 2. Normocytic
 - A. Acute blood loss before reticulocytosis
 - b. Hemolytic anemia when not associated with spherocytosis
 - C. Anemia of chronic disease
 - 3. Mikrocytic and Hypochromba
 - A. Iron deficiency
 - b. thalassemic
 - C. Sideoblastic anemia

The fact that my interest in the focus of study is ida is a mild, medium and serious types.

Mild asymptomatic (10-12gm in women, up to 13 in men), mild weakness, paleness, reduced tolerance of exercise, irritability, pica with desire for ice, clay and starch, dizziness, shortness of breath, headache, chest pain (7-10gm in women, 7-11gm in men). Severe angular stomatitis, glossitis, koilonychia, blue colored glass, palpitations, tinnitus, dysphagia and frequent infections. (Less than 7gm in women and men) (Cecil).

Iron deficiency anemia occurs when iron supply is insufficient to support optimal erythropoiesis characterized by hypochromia and microcytosis circulating erythrocytes, low plasma iron, low saturation of transferrin and marked bone marrow depletion and other body shops.

Now understand exactly what is happening in iron deficiency, usually or physiologically RBC helps in the transport of oxygen and PH of PH blood (Copstedlc). Hemoglobin is the main functional component of red cells. Oxygen (Davidson's principles and practice of medicine, 20 edition).

Similarly, iron is essential for functions in the body, including HB formation, brain development and body temperature control, muscle activity and catecholamine metabolism. Iron deficiency directly affects the immune system, reduces the number of cells and the production of antibodies. In addition to HB, iron is part of myoglobin, cytochromes, catalase and certain enzyme systems. Iron is essential for tying oxygen to blood cells. The central function of iron is the transport of oxygen and cell breathing. Iron sources are Hae and Non Hae, where part of Hae includes liver, meat, poultry and fish. Non Hae includes vegetable resources; Cereals, green leafy vegetables, legumes, nuts, oil, jaggars and dried fruits. Indian diet, which is mostly Veg, contains a large number of these inhibitors. Eg: phytates in bran, phosphates in egg yolk, tannin in tea, oxalates in vegetables. (Text of preventive and social medicine by S. Park 20. Edition). All of this is mentioned because it gives the right idea of what the iron functions are in which my choice of a specific drug Ferrum Phosphoric has appropriate.

The absorption of iron from the duodenum to the small intestine in the railway according to the needs of the body is transported as plasma ferritin and stored in the liver, spleen, bone marrow and kidneys. A characteristic feature of iron metabolism is protection. When red cells have also disintegrated, liberate iron that is re-used in the creation of new red articles. Due to recycling, only a small amount of iron is needed. (Pathology textbook, 5th edition by Harsh Mohan and Parks textbook Preventive and Social Medicine, 20 Edition.).

The upcoming points would give the essence of how Ida presents through clinical manifestations and metabolism of iron and their correlation with hemogram.

Ida is the result of an imbalance between the available body for HB production and the minimum requirements needed to maintain normal HB production during erythropoiesis. Due to the combined efficiency of food absorption and iron retaining in circumstances, this mismatch is most often due to blood loss. The usual causes of iron deficiency, as mentioned above, are insufficient diet, reduced absorption, increased requirements in pregnancy, lactation that women suffer from more iron deficiency anemia. In children, the causes of worms attack are due to the loss of iron to a greater extent. Loss of blood due to gastrointestinal problems, menstrual, adolescence, rapid growth time, blood donation, hemoglobinuria, iron sequestration, pulmonary hemosiderosis. The main cause is insufficient iron intake, because usually only about 1-2 mg/day of iron intake in the diet is needed to maintain homeostasy, only diet that this amount cannot provide corresponding iron. (Harrison's principles of internal medicine 17. Edition). Between clinical features and progressive changes and overlap changes and museum changes and power. Pica, Pagophagia, Geophagia, hair loss, amenoreaea. Functional changes include glossitis, koilonychia, cheilosis, dysphasia, esophageal cobwebs, etc.

Iron deficiency complications can lead to brain hypoxia, angina, heart failure, etc.

(API text Book of Medicine 6th Edition).

Iron cell metabolism- without iron cells loses capacity for electrons and energy metabolism, HB synthesis is disturbed in erythroid cells, leading to anemia and reducing oxygen supply to the tissue. Total iron 4-5GMS 65% HB, 4% myoglobin, 1% different Hae compounds that promote intracellular oxidation, 0.1% combined with protein transmission in blood plasma, 15-30% stored for later use in the system and liver parenchym cells, basically ferritin. When the amount of iron in the plasma reduces, part of the iron in ferritin is easily removed and transported in the form of transferrin in the plasma to the areas of the body where it is needed. TIBC regulation- Once iron shops are exhausted, s. Iron Falls, gradually increases Tibc. According to the definition, iron

trades are pulled when the level of ferritin is 15g/l. Once transferrin saturation is reduced to 15-20% HB synthesis. This is an erythropoiesis period with iron deficiency. After the destruction of the cells of RBC (80-120 days) and HB released. There, iron is exempt and stored in a ferritin pool. (Goldman L, Ausiello. Cecil Medicine 23. Volume).

Laboratory findings:

- Peripheral coating: A well-colored blood film shows small erythrocytes - microcytosis, poorly filled with hemoglobin - hypochrome, with a significant size change - anisocytosis and shape - poikilocytosis.
- Hematocrit measures % of red blood cells in a given volume of full blood.
- Hemoglobin measures the amount of protein transmitting oxygen in the blood.
- The average volume of corpuscular (MCV) is a measurement of the average size of your red blood cells. MCV is increased when your red blood cells are larger than normal (macrocytic), for example in anemia caused by vitamin B12 deficiency. When MCV decreases, your red blood cells are smaller than normal (microcytic), as seen in anemia or thalassemia with iron deficiency.
- Average corpuscular hemoglobin (MCH) is a calculation of the average amount of hemoglobin transmitting oxygen inside the red blood cell. Macrocytic red blood cells are large, so they tend to have a higher MCH, while microcytic red blood cells would have lower value.
- The average concentration of corpuscular hemoglobin (MCHC) is the calculation of the average concentration of hemoglobin inside the red cell. Reduced values of MCHC (hypochromy) are observed in conditions where hemoglobin is abnormally diluted inside red blood cells, for example in iron deficiency anemia and in Thalassemia. Increased MCHC values (hyperchromy) are observed in conditions where hemoglobin is abnormally concentrated inside red blood cells, for example in burns and hereditary spherocytosis, relatively rare congenital disorder.
- The number of plates is the number of platelets in the blood volume. Increasing and reducing can point to abnormal conditions of excessive bleeding or clotting.
- Red cell distribution width (RDW) is to calculate the change in the size of your red blood cells. In some anemias, such as malignant anemia, the amount of variation (anisocytosis) in the size of red blood cells (along with the shape - poikilocytosis) causes an increase in RDW.
- The number of red blood cells (RBC) is the number of the actual number of red blood cells per blood volume. Increasing and reducing can point to abnormal conditions.
- The number of white blood cells (WBC) is the number of the actual number of white blood cells per blood volume. Increase and decrease can be significant.
- Iron tests are groups of laboratory blood tests for clinical chemistry, which are used to evaluate iron or iron levels in blood serum consisting of: s.Ferritin: How do you be exhausted with S. Iron or Iron, s.Ferritin Falls. Such levels are the diagnosis of absent iron trade. S. Iron and Tibc: Sr.iron represents a lot of iron linked to transmission. TIBC is an indirect scale of circulating transferrin. The level of transferrin saturation is particularly useful if the assessment of the early stages of iron overload with the levels > 55% in men and > 50% in women who independently testify to iron overload (it should be fasting for more accurate SR assessment).
- Treatment: oral iron - iron sulphate, 325 mg three times a day, which provides 10 mg of iron per day, of which up to 10 mg (although absorption may exceed this amount in the event of severe deficiency) is preferred therapy. A suitable answer is to return the level of hematocrit on half a way to normal within 3 weeks with a full return to the baseline after 2 months. Iron therapy should continue 3-6 months after the restoration of normal hematological values to replenish iron shops. Parenteral iron - indications are intolerance to oral iron, refraction on oral iron, gastrointestinal disease excluding the use of oral iron and continuing blood loss that cannot be repaired.

The non-response to iron given by the mouth should consider the following:

The patient was unable to take iron according to the prescribed, the patient did not have an iron anemia, and the diagnosis is necessary, the blood loss has exceeded the new blood production,

Infection of infection, inflammation or malignancy disrupted the response to iron. The patient was unable to absorb iron; An ineffective iron preparation has been given

Then parenteral administration of iron should be reserved for the following indications

Patients with malabsorption syndromes. Relatively small groups of patients who are not willing to take iron by mouth, including people with ulcerative colitis, regional enteritis and colostomia. Selected patients who have shown unreliable when using the prescribed iron. Some patients with chronic irritable bleeding with iron loss beyond what can be replaced by an oral route.

Although we give oral and parenteral relapse of iron anemia, it is common in 1/3 of women and 1/4 men. This recurrence rate emphasizes the importance of identifying and remedy the cause of iron deficiency. Despite the recurrence, the side effects and retention of costs play a role in the cause of anemia and its recurrence (Cecil). It was mentioned that the absorption and assimilation of iron after the start of the iron supplement varies in various patients. Some patients begin to react earlier than others, while seeing that there are no response to hematics in some patients. In homeopat, all these clinical spectra presentation and reaction to the drug can be understood from an important advantageous point of sensitivity.

Homeopathy is a science that is derived from the Nature Act. The reason for anemia is sometimes not a lack of iron intake, but it is the inability of the body to use existing iron and also the inability of absorption and assimilation. The reason is the susceptibility of the sick individual. The sensitivity disrupts the capacity of the predetermined reaction and this interference is reflected in the chain reaction, which eventually leads to a loss of balance, as evidenced by the development of the disease. It is influenced by many factors, ie emotional, nutritional condition, repeated infections, poor hygiene and low economic condition. Homeopathic treatment allows the system to use available nutritional supply from food to an optimal range. Since normal susceptibility is essential for maintaining health and diseases that are the result of abnormal sensitivity, all rational therapeutics will restore normal susceptibility. We have found that the organism is constantly required to adapt to its environmental conditions to maintain harmony. If the tolerance limit is reached, the adaptation process also reaches a turning point. This is known to the person's feeling of restlessness and reflects the train sign and symptoms of anemia, such as palpitations, dyspnoea, weakness of anorexia, pale and digestion.

Homeopathic drugs that are selected on the basis of individualization help the patient's sensitivity by helping the system in absorption, assimilation and iron storage. Positive Ferrum Phos action is well known when repairing anemia. With regard to all this, in anemia with a lack of iron as a specific drug was given as a specific medicine in order to fight the system itself, which suffers from reduced HB levels. Ferrum Phos 6X has many advantages that are effective, easily accessible, no disadvantages of side effects such as nausea, vomiting, epigastric pain, diarrhea or constipation. It's easy to handle.

Ferrum pHos acts on the digestive system and promotes appetite and refreshes digestion by increasing food storage and layout to storage. "Ferrum acts as a stomach tonic". This means that Ferrum improves the assimilation and absorption force of iron in the intestines and also increases the patient's susceptibility, helping to increase the level of HB.

As various homeopathic authors state, they have few of their coated quotes about Ferrum phosphoricum as: W.H.Burt says -iron has a specific blood action, to create albumin and increase the serum in serum sanguinis, while lowering cervical blood. Its effect on the blood organs, especially the spleen, is very prominent, produces atrophy, causing it to fail to fulfill its functions in the process of sanguification, causing real and well -marked anemia or hydiemia with all their symptoms of accompanying. Metals find their habitat and perform its function in red blood bodies. Now it is in the shortcomings of these very thick substances in "poverty of blood", which we call anemia. Kent describes- "great weakness, desire to lie down, nervous at night, first phase of inflammatory fever". Most of the apparent features are anemia and chlorosis like ferrum. General physical anxiety is more like phosphoric acid. The hemorrhagic state is a strong feature, as in Ferrum, Phos-AC., And PHOS. The head is very hot, flushing heat and red facial heat in the head. The taste is reduced, rough appetite without enjoying food. Appetite completely. Aversion to eat, meat, milk, desire acidic things. Stomach distribution after eating. Nash says: "In accordance with the iron element, it represents a local overload of this drug and in its phosphor element its affinity to the lungs and stomach and its combination will prove to be a hemorrhagic remedy. Plain is bright red blood and can come from any body interference. A high degree of inflammatory fever, especially in anemic subjects. I found it from most services of pale anemic objects that are subject to heat flushing and redness of the face and generally local overload. At this stage of the disease it certainly does a great job. Ruddock says- skin, lips and mucous membranes generally pale, bloodless appearance and face looks like wax, gum lining and mouth is white and the tongue is large, flabby and pale. The pulse is weak, the fiber, beats about 80 times per minute and is easily enthusiastic. The patient becomes very weak and weak, is easily tired and loses his breath. E.A. Farrington says -Ferrum acts in young people - men or women who are subject to irregular blood disorders. N. M. Chowdary is called- it is an iron phosphate. Its function is to give the color or pigment to the blood body. It also carries oxygen to all parts of the body. The lack of this cell salt leads to disturbance of circulation. The disturbed circulation in its train causes further disorders in the normal balance of the human system. Dr. W. Boericke says it acts on blood and increases hemoglobin. According to Schussler Ferrum, the metal takes its inhabitants in red blood cells and works well when transferring oxygen to tissues, adds the necessary nutrients to the body. Corresponds to the Grauvogl Constitution Oxygeniod Ferrum phosphoricum is a drug that does not indicate that the supply of iron molecules causes relaxed condition of muscle tissue; They are hyperemic or overloaded with dilatation of blood vessels, with the stages of inflammation before exudation occurs. In all these cases of anemia, with devotion, failing appetite, boring and heartless improvements with improvements with good physical development then

Schussler formulated biochemical theory on the basis of Rudolf Virchow and Moleschott. According to biochemistry theory, health is dependent on the amount and balance of organic and inorganic components in the body. The body is only a collection of cells, each cell consisting of organic and inorganic matter; Former quantitatively, to a large extent of transfer. However, it is the presence of an inorganic matter that, although in a minute amount, combines and activates the organic element and causes the cell to function in a normal way.

CONCLUSION:

Ida was considered a disease of poor people, but nowadays, whether poor or rich, someone may be influenced for various reasons. The causes of the deficiency include increased iron demand as in pregnancy, increased iron loss, as shown in children due to the infestation of the worms growing in India, reduced iron intake, such as poverty, various misconceptions about food, religious habits, defective lifestyle, etc. or reduced absorption, Reduced striking. I have seen cases where the income is normal, but the system is not able to use the trades properly due to the sensitivity problem.

In most cases, IDA is an iron and folic acid supplement, a change in diet and the fortification of foods of the main approaches by a conventional medical system. Along with the refilling of the iron, other medicines are also prescribed that correct underlining problems, such as deworming in cases of worms contamination. These drugs are not only expensive, but also cause side effects such as constipation, nausea, vomiting, headache, etc. and are not well tolerated by everyone. This line of treatment is most temporary because the basic problems that have not been solved. Thus, despite all these interventions, anemia has not been observed for a long time.

All patients received a Ferrum phosphorum 6x QDS 1 tablet that caused a statistically significant HB% increase. Clinical meaning shows a slight result. However, the level of HB increase is much slower than the increase in conventional hematics, which is about 1gm.... In 7 - 10 days.

REFERENCES/BIBLIOGRAPHY:

1. KASPER DENNISS., Fauci Anthony s., Longo Dan L., Braunwald Eugene., Hauser Stephen L., et. all, 2008, HARRISON'S Principle and Practice of Internal Medicine, McGraw Hill Publication, 17th edition, Volume 1, chap 305, 350
2. BEESON, McDERMOTT, WYNGAARDEN, "Cecil Textbook of Medicine", 1979, 15th Edition, Saunders Publishing Co.
3. GEORGE W. CAREY," BIOCHEMIC SYSTEM OF MEDICINE",1935 Thirtieth edition ,published by The Luyties pharmaical company
4. National Journal Homoeopath, "Ferrum: The Iron which Heals which was published by Ashok H. Advani
5. BOERICKE, WILLIAM,(1998 Reprint) "Pocket manual of Homoeopathic Materia Medica and Repertory", B. Jain Publishers
6. DAVIDSON, STANLEY; Boon Nicholas a. et all 2006, 20th revised edition "Davidson's principles and practice of medicine", Churchill and Livingstone publisher

7. HAHNEMANN, SAMUEL, 1921, 6th edition "Organon of Medicine", translated by William Boericke, published by B. Jain publishers
8. JOHN M. KISSANE, Anderson's Pathology, volume 2, 9th edition, Jaypee brothers Medical Publishers (P) Ltd. New Delhi, 1991, pg. no. 1378.
9. GOODMAN & GILMAN'S, the pharmacological basis of Therapeutics, 10th edition, McGraw-Hill Medical Publishing Division, USA, pg. no. 1494.
10. K. PARK, PARK'S Textbook of Preventive and Social Medicine, 18th edition, M/s Banarsidas Bhanot Publishers, Jabalpur, INDIA, 2005, pg. no. 450.
11. MC Gupta, BK Mahajan (Late), Textbook of Preventive and Social Medicine, 3rd edition, Jaypee brothers Medical Publishers (P) Ltd. New Delhi, 2005, pg. no. 354.
12. HARSH MOHAN, Textbook of Pathology, 5th edition, Jaypee brothers Medical Publishers (P) Ltd. New Delhi, 2005, pg. no. 372.
13. Fransi Vermeulen. 1988 "Prisma the Arcana of Materia Medical Illuminated"
2nd edition Emryss Pvt. Ltd. Pg. no. 629, 630, 631, 632, 633
14. Burt W.M. "Physiological Materia Medica" 3rd edition. B. Jain Pvt Ltd. Pg no 410, 411, 412, 413
15. Phatak .S.R. "Materia Medica Of Homoeopathic Medicine" 2nd Edition B. Jain Pvt Ltd Pg no 312, 313
16. Lesser. Otto. 2000 "Text Book Of Homoeopathic Materia Medica" B. Jain Pvt Ltd Pg no 720, 721, 722, 723, 724, 725, 743, 744"
17. Dhawale. M.L. "Principles & Practice Of Homoeopathy" Part 1 Dr. M.L. Dhawale Memorial Trust Pg no 247, 248, 249
18. KUMAR, COTRAN, ROBBINS, Basic Pathology, 6th edition, Elsevier Saunders, Harcourt Asia P. Ltd A Harcourt Publishers International Company Singapore, 2001, pg. no. 354.
19. WARREL, COX, Firth, Benz, Oxford Textbook of Medicine, volume 3, 4th edition Published in the United States by Oxford University Press Inc., New York, 2003, pg. no. 651, 652.
20. SIDDHARTH N. SHAH, API Textbook of Medicine, 8th edition, The Association of Physicians of India, 2008, pg. no. 798.
21. W.H. BURT, Physiological Materia Medica, reprint edition 2005, B. Jain Publishers (P) Ltd New Delhi, pg. no 409, 410.
22. SCHUSSLE'S Twelve tissue remedies by William Boericke and Williams.
A. Dewey, 2003, pg. no. 61, 62, 63.
23. COPSTEAD LC, BANASIK JL, pathophysiology. 3rd edition China: Elsevier Saunders; 2005.
24. GOLDMAN L, AUSIELLO D. CECIL medicine - 23rd edition vol-1 Philadelphia: Saunders, an imprint of Elsevier, 2007 pg: 1189.
25. MASSEY AC. Microcytic anaemia: differential diagnosis and management of IDA. The medical clinics of North America 1992 may; 76(3):pg. 552, 558, 634.
26. JAMES TYLER KENT Lectures on Homoeopathic Materia Medica, reprint edition 2000, B. Jain Publishers (P) Ltd New Delhi, pg. no. 531, 534.
27. P. SIVARAMAN, Expanded Works of NASH, reprint edition 2004, B. Jain Publishers (P) Ltd New Delhi, pg. no 337, 338.
28. E. HARRIS RUDDOCK, RUDDOCK'S Homoeopathic Vade Mecum, reprint edition 1994, B. Jain Publishers (P) Ltd New
29. Burt W.M. "Physiological Materia Medica" 3rd edition. B. Jain Pvt Ltd. Pg no 410, 411, 412, 413
30. Dunham C. "The Science Of Therapeutics" 1st Reprint Edition, New Delhi: B. Jain Publishers Pvt. Ltd.; 1998. Pg no 4, 5
31. Boericke W. 2001 "Organon Of Medicine By Samuel Hahnemann", Sixth Reprint Edition. New Delhi: IBPP; Pg no 262, 263