



Anaemia: Different Types

Anaemia represents a clinical syndrome of an inadequate number of circulating red blood cells and an insufficient amount of hemoglobin to deliver oxygen to tissues, resulting in pallor, fatigue, shortness of breath and predisposition to cardiac complications.

Various types of Anaemia and their manifestations are discussed below.

IRON DEFICIENCY ANAEMIA (COVERED) HAEMOLYTIC ANAEMIA (TACKLED)



Compiled by:

DR ALKA RAJPURIA LCEH
Rajpuria Medicals
Badnera Rd, Amravati
Tel: 0721-576794/ 78901(R)

APLASTIC ANAEMIA:

A reduction in the number of circulating RBCs resulting from bone marrow failure, accompanied by agranulocytosis and/ or thrombocytopenia.

Causes and Incidence: Etiology is unknown in half the cases; other half being induced by chemicals, drugs, viruses or radiation. It has a low incidence in the population.

Disease Process: Exposure to known or unknown toxins depresses production of erythrocytes, platelets and granulocytes in the bone marrow. Common toxins include ionizing radiation, chemical agents (eg Benzene, DDT, carbon tetrachloride), and drugs (eg anti-tumor or anti-microbial agents).

Symptoms: Onset usually insidious, occurring weeks



or months after exposure to toxin. Fatigue, weakness, dyspnoea and waxy pallor of the skin and mucous membranes are characteristics. Thrombocytopenia causes hemorrhages into mucous membranes, skin and optic fundi. Agranulocytosis leads to severe infection.

Potential Complications:

Chronic anaemia leads to increasing hemorrhage and repeated infections, which result in death in about half of those diagnosed.

DIAGNOSTIC TESTS:

Complete blood count (CBC)

Decrease RBCs (normochromic, normocytic), WBCs, and hemoglobin (Hb)

Platelet count

Decreased

Bone marrow biopsy

Hypocellular / hypoplastic; fatty, fibrous tissue

Reticulocyte count

Marked decrease

GENERAL:

Removal of causative agent; bone marrow transplant if possible, blood transfusions; hemorrhage precautions.

PERNICIOUS ANAEMIA

A chronic, progressive anaemia characterized by the production of megaloblasts, which are enlarged red blood cells with an immature nucleus.

Causes and Incidence: Pernicious anaemia usually is caused by deficiency or underutilization of vitamin B₁₂.

Disease Process: The gastric mucosa develops a defect by unknown factor and atrophies. This inhibits the secretion of intrinsic factor (IF), which binds and transports dietary vitamin B₁₂ to the ileum for absorption. The lack of IF prevents vitamin B₁₂ from entering the body, and existing stores of the vitamin are depleted, leading to the production of enlarged, immature RBCs.

Symptoms: Usual signs and symptoms associated with anaemia (pallor, fatigue, weakness, dyspnoea) plus symptoms that stem from the physiology changes in the gastrointestinal tract (eg glossitis, gingivitis, indigestion, epigastric pain, loss of appetite, diarrhoea, constipa-

tion, weight loss). Peripheral neurologic changes occur, with paresthesia in the hands and feet.

Potential complications: If the condition goes untreated, the neurologic changes become more profound, with involvement of the spinal cord and loss of vibratory sense, ataxia, spasticity and disturbances in bowels and bladder function. Depression, paranoia and delirium may follow. Splenomegaly and hepatomegaly occur, as well as organ failure, neurologic degeneration, or infection, eventually causing death.

Diagnostic Tests:

Peripheral blood smear-Oval macrocytes, hypersegmented neutrophils, enlarged platelets

Schilling test-Radioactive- tagged vitamin B12 is not excreted in urine.

Complete blood count- Decreased Hb, leukocytes, erythrocytes and thrombocytes

Bone marrow aspirations- Hyperplasia; increased large-cell megaloblasts

Gastric analysis- Lack of free hydrochloric acid

General:

Treatment of underlying cause of gastric atrophy, if possible; oxygen to increase arterial levels; oral hygiene; orientation if confused; safety precautions for neurologic effects; instructions about vitamin B12 replacement as a life change.

POST-HAEMORRHAGIC ANAEMIA

An anaemia characterized by a decrease in hemoglobin in the blood, related to rapid, massive hemorrhage.

Causes and Incidences: Rapid blood loss may be caused by traumatic rupture or incision or erosion of a large blood vessel (ulcer, tumor). The prognosis depends on the rate and the site of the bleeding and the total blood loss.

Disease Process: With blood loss, blood volume diminishes, haemodilution occurs and oxygenation of the tissues declines.

Symptoms: The rate of blood loss determines the signs and symptoms, which may include dizziness, faintness, weakness, pallor, thirst, sweating, rapid, weak pulse,



rapid respiration and orthostatic hypotension.

Potential complication: Lack of prompt treatment or failure to control the bleeding results in shock, coma and death.

Diagnostic Tests:

CBC- RBCs, Hb and Hct are deceptively high during initial period of hemorrhage because of vasoconstriction; values begin to decline within hours of the onset of bleeding if hemorrhage is not controlled.

Peripheral smear- Normocytic cells, agranulocytosis
Coagulation time - Reduced

General-Elimination of causative agent, erythrocytapheresis (RBC exchange), transfusion, oxygen therapy for hypoxemia, fluid and electrolyte management.

HOMOEOPATHIC REMEDIES:

CALCAREA-PHOSPHORICA

This remedy acts by supplying new blood-cells.

Pains and cramps dependent on anaemic conditions.

Waxy appearance of the skin due to anaemia.

Chlorosis, complexion waxy, greenish-white, with constant headache and ringing in ears.

Schussler gives this remedy alone for chlorosis.

“A fine constitutional remedy in old cases of cerebral anaemia where nutrition is manifestly defective.” (Arndt)

“Pernicious anaemia, vertigo when getting up or on rising from sitting, eyes misty, epistaxis, point of the nose cold, pale face, sallow, yellowish, earthy, cold sweat on the face, body cold, foul taste and smell, tongue white, furred at the root most in the morning, nausea and vomit, empty, sinking sensation at the Epigastrium, watery looseness of the bowels, with urging after stools day and night, urine with flocculent sediment, menorrhagia, blood either bright-red or too dark, palpitation with anxiety, followed by trembling weakness, particularly of the calves, weariness and the greatest weakness.” (Arndt)

This remedy is also useful in leucaemia, or excess of white corpuscles in the blood after exhaustive disease.

FERRUM-PHOSPHORICUM:

Follows *Calcarea-phos* as soon as improvement of the general health sets in.

There is a want of red blood in the system.

This remedy, by its power of attracting oxygen, colors the new blood-cells and enriches them after they have been supplied by *Calcarea-phos*

Schussler in a letter says:

“Iron, which enters into the formation of young blood-cells, is never absent in the blood stream of the chlorotics”.

Therefore I have lately abandoned iron, which I recommended in the first editions of my Therapeutics for chlorosis and other anemic conditions.

KALIUM-MURIATICUM:

This remedy may have to be given in anaemia, as a secondary remedy or intercurrent, if such symptoms as eczema or eruptions of the skin coexist.

KALIUM-PHOSPHORICUM.

Cerebral anaemia, anemic conditions of the brain causing undue nervousness.

Poverty of the blood from influences which continually depress the mind and the nervous system

This remedy also cures the leukemia, which is induced by long continued disorders.

“Spinal anaemia, from exhausting diseases, such as diphtheria, reflex paraplegia, with aching pains aggravated by rest, but most manifest on the beginning to move about.” (Arndt)

NATRIUM-MURIATICUM

In anemic conditions, where the blood is thin and watery; in chlorotic conditions, with an almost habitual feeling of coldness in the back; chlorosis in young girls, with dead, dirty skin, frequent palpitation, oppression and anxiety in the chest, morning cough, easily fatigued and prostrated, with the characteristic tongue, etc; malarious cachexia, from ague and *Quinine*, sallow complexion or very pale, pressure and distension of the stomach, constipation with contraction of the anus, ter-



rible sadness.

NATRIUM-PHOSPHORICUM:

Spinal anaemia, paralytic weakness of the lower extremities, with the general prostration, heaviness and sensation of fatigue, especially after a short walk or ascending steps; legs give way, so as to be unable to progress further.

NATRIUM-SULPHURICUM:

Hydranaemia, sycosis, hydrogenoid constitution of the body, depending upon dampness of the weather or dwelling in damp houses; sycosis and hydranaemia. (Lilienthal)

SILICEA:

Leucorrhoea instead of menses; attack of momentary blindness or obscuration of vision. Anaemia in infants, thin, delicate and puny, with tendency to rickets.

ALUMINA:

Cold, chilly girls with inactive rectum and bladder; anaemic at puberty with pale, scanty menses and profuse leucorrhoea; marked debility.

Sadness in the morning on awaking.

ARGENTUM-MET:

Similar to *Nitricum* in chlorosis. Body shriveled, complexion sallow, dyspnoea, palpitation, prolapsus, ulceration and induration of the uterus; foul leucorrhoea.

CALCAREA-CARBONICA:

Anaemia of girls; diminished haemoglobin and red blood corpuscles, increased leucocytes- Chlorosis. Psoric, scorfulous, tuberculous diathesis and general symptoms of the drug. Sad and apprehensive. Rush of blood to the head and vertigo, on excitement, on hearing bad news, sufferings of others. Cold feet, dry cough at night, partial sweat, soreness of chest beneath right clavicle. Menses too profuse, too soon.

CALCAREA-ARSENICUM:

A careful study of this remedy is worthwhile in anaemia and chlorosis, with the mind upon *Calcarea* and *Arsenicum*. Fleeshy women at climacteric, palpitation

from the slightest emotion, chilliness; haemoglobin and red-corpuscles low.

MANGANUM-ACT:

Chlorosis, even Pernicious Anaemia with no history of haemorrhages but long period of scanty menses.

Headaches, irritability, sad and silent weeping mood; prefers to lie down and great relief therefrom.

GRAPHITES:

Anaemic though obese; cold, constipated; rough, herpetic skin; cracks and fissures; late, scanty, pale, watery menses: low-spirited and chilly, indoors or outdoors. Complements *Ferrum*, having many symptoms in common.

LACTICUM-ACIDUM:

Anaemia with diabetes; nausea after eating; canker sores in mouth; salivation; polyuria.

KALIUM-CARBONICUM:

Anemia with chilliness, cannot go out without becoming chilly and cold; vertigo, humming in ears, weak heart, sweat, and backache, especially with female complaints and well known modality and characteristics of *Kali-carb*.

Often complements *Nat-mur*.

PHOSPHORUS:

Anaemia in deep-seated chronic diseases in tall, slender, narrow-chested, Phthisical patients; easily catching cold; menses too early, too copious, bright red.

Chronic loose stool; great thirst for cold, refreshing drinks. Jaundice .

Ferrum-phos and *Calc-phos* sometimes outclass their components.

HYDRASTIS:

Anaemia from deep-seated zymotic diseases, as cancer, etc, with faintness, prostration, atony, emaciation; yellowish-white skin.

CYCLAMEN-EURAPAEUM:

Similar to *Pulsatilla*, but more or less thirsty and dreads open air; physical langour in the morning.

Scarcely fit to go through the day's work, but goes on tolerably well.



HELONIAS-DIOICA:

Chlorosis or Anaemia from prolonged hemorrhages in those enervated by luxury or worn out with hard work; sleeplessness and melancholia; tired, weak, backache, females, better when attention is engaged or when doing something.

PICRICUM-ACIDUM:

Extreme prostration in Pernicious Anaemia; burning pain along with the spine, worse from excitement.

SEPIA-OFFICINALIS:

Similar to *Pulsatilla*, but differs in mental symptoms. *Sepia* is irritable, often vehement; averse to household duties.

SECALE-CORNUTUM:

Progressive General Anaemia with cachexia; pale, bloodless, jaundiced; body cool but worse from warmth.

ALETRIS-FARINOSA:

Tired all the time like *Helonias* with anaemia and relaxation etc; of female organism. "The *China* of the uterine organs".

SULPHURICUM-ACIDUM:

Often arouses up action of other remedies; flushes of heat; vertex; cold feet; burning of the soles; oppressions of the chest at night- must open window; weak, sinking feeling in the epigastrium at fore-noon.

ZINCUM-METALLICUM:

Too anaemic to develop an exanthema or menses; progressive general emaciation, burning along spine, twitching of muscles, general trembling; jerking of body during sleep; aggravated by wine or stimulants.

ANAEMIA From exhausting diseases, discharges, or hemorrhages, chi. 3, 4h.

For Simple iron deficiency anaemias, there are many

excellent iron preparations:

1. *Ferrum* 6. OD for 1 week, followed by *Ferrum* 12 OD for 1 week followed by *Ferrum* 30 for 1 week will produce a rapid rise in hemoglobin. (NB: If iron does good at all, it does it rapidly and it should be stopped as the improvements ceases. If there is no improvement at first, it should never be continued.)
2. *Nat-mur* 6: with constipation, palpitation on lying low down, earthly complexion, *Nat mur* 6, 6h.
3. Constipation very obstinate, *Plumbum-acet* 3, gr.ii. 8h.
4. With much sickness, inability to retain any food, *Petrol* 3, 4h
5. Especially in splenic anaemia, *Rub-t*, gtt x 8h
6. In patients who have been heavily dosed with tonics, *Puls* 3, 4h
7. Anaemia, resulting from accidental stoppage of the menses, *Puls* 3 4h.
8. Anaemia with excessive menstrual loss, the period coming on before its normal time, *Calc-c* 6, 4h.
9. With marked disposition to bodily or mental exertion, and great increase of urates and phosphates in the urine, *Picr-ac* 3, gr ii. 8h.
10. In pale, flabby children, with tendency to enlarged tonsils, *Calc-phos* 3, gr.v.8h.
11. Chlorosis (green sickness), with mental depression, irritability, debility and increase of phosphates in urine, *Helonias* - 3, 4h.
12. Anaemia in infants, thin and puny, with tendency to rickets, *Silica* 6, 8h.
13. Anaemia with vomiting, acute epigastric pain and tenderness, palpitation and fainting, *Arg-n* 6, 1h.

SOURCE: Comparisons in Materia Medica with Therapeutic Hints, E A Farrington, API, KITCHULU

Answer to Find the remedy (Case 5 jaundice Issue Vol 3. No 3)

"See skin chapter Page No 1328 of Kent's Repertory, the sub-rubric: Itching, jaundice, during *Hep* this the only remedy and

Clarke's Dictionary: On *Hepar-Sulph* Yellowish colour of the skin, especially on the face, with yellowish colour of sclerotica and urine Burning itching in the body with white vesicles after snatching."