



Role of Pathya Apathya in management of Pandu *vis a vis* iron deficiency Anemia

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Abstract

Pandu roga the word itself describe as the disease in which there is presence of altered skin color like yellowish white discoloration of skin. Pandu widely described in various vedas and ayurvedic texts as an independent disease or associated symptoms of other disease. In modern it can be closely related with iron deficiency anemia on the basis of symptoms and causative factors. In a recent estimate, about 8.8% of global population is affected includes all age groups. It is most common form of anemia in India with root cause of nutritional deficiency. Due to high vegetarian diet and less dairy or poultry intake prevalence rate increases per year. Generally conditions arise when in race of fulfillment of livelihood people neglect their health issue by neglecting their nutritional values, which are low. Our challenge is to maintain the diet regime in order to aware the people about adverse effect of IDA (Iron deficiency anemia).

Key words: Iron deficiency anemia, Pandu roga, nutritional deficiency.

Introduction

The term anemia in Greek language means lack of blood or hemoglobin .IDA results from the loss of blood or inadequate diet or GIT infections or worm infestation or malabsorption. The condition when percentage of iron loss is greater than intake, which is not compensated by only dietary intakes. The amount of iron obtain from diet should be sufficient to replace the normal loses from sweat, urine and stool, which is widespread in tropic areas. ID leads to impaired brain function, GIT function, altered hormone production and metabolism (cell repair). WHO reports iron deficiency is most common among the group of low socio economical status and developing countries.

Need of the study

There is no current global figure but in an estimate according to WHO around 30- 40% of industrialized countries are iron deficient, which include majority of south Asia (WHO, 2001). Prevalence of IDA in India is about 35-45% in children and 88 % in pregnant woman. As an estimate about 74% non pregnant females in India affected moderately too severely (WHO, 2001). Present study shows that about 23-33 % affected

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from the age group of 21- 30 yrs. Our aim is to prevent iron deficiency through increase in bioavailability of Iron in the body via food based approaches.

Causative factors: Acharya Charak has described the Nidanans of the disease:

Aharaj nidan (dietary factors):- *Ati- kshara sevan, Ati amla-lavan- ushna- teekshana sevan* (excessive carbonated drinks sour – salty- hot – spicy food intake).

Viruddha bhojana, asatmya bhojana (unfavorable food). Excessive use of *madya* (alcohol intake), *saim*(broad beans), *urad dal* (black gram lentils), *tiltaila* (sesame oil)

Viharaj nidan (evironmental factors): *Ati vayayam* (excessive exercise), *Ati vyavaya* (excessive coitus), *Diwaswapa* (day time sleep), *Vega vidharana* (holding natural urges), not following pathya regimen with detoxification procedures like panchkarma etc.

Mansik bhava (Psychological factors):- *Kama* (Desire), *Chinta* (worrying), *Bhaya* (fear), *Krodh* (anger), *Shoka* (grief). (Rai, 2015).

According to Charak these etiological factors independently or along with others aggravates the pitta dosha (*jataragnimandhya*). Later on the vitiate doshas causes *rasavaha avum raktavah srotusdusti*



(improper absorption cause decreased red cell formation) (Rai, 2015) which develop the pathology so *alprakto alpmedasko* in Ch.Chi. 16/6.

Cardinal feature of pandu/ iron deficiency anemia develop like:

- Pallor of skin
- Scanty blood
- Fat/ marrow deficiency
- Loss of glow
- Sensory blunting
- Tinnitus etc.

With other associated symptoms:

- *Durbalya* (general weakness), *Shrama* (easy fatigue less), *Angasada- gatraseda* (bodyache),
- *Dyspnea* (shwasa), *Hridyspandana* (palpitation), *Pindikodwasten* (intermittent claudication)
- As we can see that Acharya Charak mention the nidanas on the basis of what we can eat and how we eat, so we can easily correlate pandu with iron deficiency anemia because in both aspects nutritional value of food is low or there is factors involve disturbance in absorption of iron.

Pathya –apathya aharivivechana (proper diet management)

Acharya Charak describes some measures for pathya – apathya diet of patient. According to ayurveda, constitution of our body and disease both are dependent on type of ahara (food) we take and how we take. There are some criteria given: measure, time, mode of preparation, habitat, constitution, morbid humours. In Ayurveda ‘ahar’ is said to be a dominant factor in the sub pillars of life (*Trayo upstambh*). These sub pillars comes under *yukti-vyapashraya chikitsa*, are the base of how we can lead our life greatly. (Sharma, 2016)

Apathya Ahar:

- One must avoid etiological factors.
- Food to avoid -Shaka, shimbi, Excessive use of pea, Rajma, Masha (urad dal), Sarshapa (mustard leaves), Tambula (betel leaves), Ati ambupana (excessive water intake)
- Liquid diet: – Dusta jalpana, Madaya (liquor)

- Life style- Patient must avoid smoking, sweating, excessive intercourse, day time sleep, excessive exercise –anger – hardwork- and exertion. (Byadgi and pandey, 2014)

Inhibitors (which inhibits iron absorption)

- High phosphates and Ca diet (when taken with food) hinders the iron absorption in intestinal area, where Heme form of iron get absorbed.
- Phytates presents in cereal grains, legumes, nuts & seeds, foods with high inositol contents (WHO, 2001)
- Excessive use of Tannins containing beverages like tea, coffee, coca based drinks, carbonated soda etc. (WHO, 2001)
- Excessive use of highly salted, pickles & jam, spicy, hot, fried products, food made in unhygienic conditions.
- Avoid excessive use of antacids/ Aspirin / NASIDS as they damage the intestinal flora (Castro and Cairo, 2014).
- Work under excessive warm conditions also increase the iron loss from sweating and urine, affects mostly children.
- Tropical area or hot humid area is more prone, as 85% patients are affected by IDA.

Pathya ahar

Generally iron present in our body is of two types: Heme and non- Heme, with in which Heme is the absorbable form of iron. Directly by maintaining pathya - apathya, we can increase the bioavailability of Heme iron. Food that is *Agnideepana* (improves digestion) should be given like madhura- tikta- kashaya rasa and guru- ruksh- teekshna gunas.

- Like taking wholesome food (*Ana varga*): *puran shali chawal* (type of rice), *jawar* (barley), wheat, *moong-masoor dal* (lentils), vegetable soups.
- *Mamsa varga -jangaal mamsa rasa* (Flashy & meat soup).

Some preparations are given by Sushrut - *Amla swaras with madhu* (gooseberry juice with honey), *ikshuswaras with madhu* (sugarcane juice with honey), *manth with madhu* (Sharma, 2016).

Factors like vitamin C (ascorbic acid), vitamin A, folic acid, amino acids, sugar content increased the utilization of iron (Chug, 2013), as our body absorb



only 10% of iron from the source (Castro and Cairo, 2014).

- Increase the intake of fruit juice like orange juice, pineapple, pomegranate, ripe mango.
- Vegetables like- cabbage, ripe ash gourd, unripe banana, garlic, onion, green leaves, carrots, cauliflower, potatoes, tubers in meal which are high in vitamin C and vitamin A.
- Red meat, poultry products, fish, seafoods are rich source of Heme iron.
- Use of ghee (clarified butter), buttermilk, oil
- Cooking, fermentation, germination reduced the phytic acid (phytates) or phosphate content in food, increases the bioavailability of iron in intestinal flora like soya sauce (WHO, 2001).
- Explore new cooking methods like using iron pots.

Some important tips for IDA patients:

Diet:

- Avoid tea, milk, coffee, soda or excessive water intake with main meal.
- Include fruits and juices with your meal
- Avoid malting of cereals, prolonged cooking on high or low flame.
- Avoid corn tortillas bread, tea, milk products with main meal, take time gap of 1-2 hrs. (WHO, 2001)
- It is best to take iron supplement after 2-3 hrs of meal or at fasting time.

Sleep: Avoid day time sleep

Meditation: As mental factors are integral part of today's lifestyle, we have to find alternative by regular meditation like pranayam.

Conclusion

Iron deficiency anemia can be insidious in onset or sudden, patient generally unaware of his condition.

Poor availability of dietary iron is the main etiological factor, Children and younger women are more prone to IDA. According to WHO each group of age is vulnerable to it which costs cognitive development of child to adults, damage immune mechanism, increases pregnancy complication and morbidity rate. As IDA is a globally common nutritional disease, we must prevent iron deficiency with food based approaches via dietary improvement or modification & fortification to control mild to moderate form of IDA or Pandu with the help of yurveda. In Samhitas it is already said that following favorable diet (pathya), is the best medication for the patient. Again he said that intake of Pathya with equitable mansik bhavas balance the body constitution and helps to achieve a healthy body.

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