Appendix.1

VIDEO PROGRAMME ON ANAEMIA - SCRIPT*

COMMENTARY

Women's duties at home, farm and work place are never reduced. There own expectation for work output is neither reduced nor neglected but their time for doing these activities increases with each new born. Their eyes become pale. Their faces lose shine, still their incapacitation is not noticed by family members. what it could be? **ANAEMIA**

Women in our country tend to be easily fatigued. Also their output does not match the time spend in these activities. This condition of the body is due to anaemia. Frank anaemia (nutrition anaemia) develops only when the body stores of iron and vitamin B12 or folic acid have exhausted for some time and represents a late stage of malnutrition. Anaemia occurs widely in various parts of the world. Women and children are the worst hit sections. The condition is severe with growing children, and pregnant and lactating women. In North America 13% women are suffering from anaemia and in south America 22% women are anaemic. Even in Europe 25% women are suffering from anaemia. In our country India 61% to 90% women are anaemic. According to pooled data 72% pregnant Indian women are anaemic. but the severity is slightly lower in other category of women i.e., unto 61%. Fifty percent of pre school children are also sufferer of the same problem.

There are several types of anaemia. But the iron deficiency anaemia is the most commonly found anaemia in Indian population. Anaemia occurs when body iron stores become inadequate for normal erythropoisis. It is only when the tissue stores of iron are exhausted that anaemia sets in. The supply of iron to bone narrow is reduced which affects haemoglobin synthesis. The red blood cells contain the pigment haemoglobin which is bright red in colour with oxygen. These cells are biconcave disc with 7 micron diameter and thickness of 2 micron. There is a increase in the normal areas of central pallor to a extremely large area of central pallor surrounded by a small rim of haemoglobin concentrating at the periphery. It is characterized as **hypochromia.** Iron deficiency anaemia may be sign of many other diseases associated either with malnutrition or infection.

Common signs of anaemia are:

» Discolouration of inner portions of lower eyelid

» Discolouration of tongue

» The development of spoon shaped nails in severe case of iron deficiency.

Some other symptoms of anaemia of are:

» Shortness of breath

» Fatigue with slight exertion

» Loss of appetite

» Tingling of the fingers.

» Increased heart rate and palpitation.

The degree of reduction in haemoglobin is indicative of anaemia. Acceptable normal values of haemoglobin in children from 6 months to 6 years is 11 g/100 ml of blood, 6 years to 14 years is 12g /100 ml of blood, adult male 13g /100 ml of blood, adult female 12 g/100ml of blood and pregnant women 11g/100 ml of blood. Although highly sophisticated techniques of haemoglobin estimation are available, a rapid method of haemoglobin estimation is found practicable at field condition in which. 0.2 ml of blood is drawn by pricking finger tip. It is then mixed with HCL (Hydro Cloric Acid) and diluted with distilled water to match the colour in the column.

QUESTION-ANSWER SESSION WITH NUTRITION EXPERT

Q: What dietary changes are recommended for curing anaemia?

Ans:Dietary modification recommended has two way approach. One is to increase the energy intake by increasing the normal habitual food and this in turn would increase the iron intake by 25-30% and secondly by increasing iron absorption enhancer to increase the bio-availability.

Q:Which foods are rich in iron?

Ans: Cereals like wheat, jowar, bajra, ragi pressed rice, pulses and legumes, gaggery, leafy vegetable (i.e., green leafy vegetable).nuts like, ground nut and oil seed like, gingelly seeds are rich in iron. But along with these other foods should also be taken to increase the bio-availability of iron. i.e., Vitamin c rich food should be included. For this fruits like lemon, guava, orange and aonla should be included in daily food. Green leafy vegetables should be increased in diet because vitamins increase iron absorption in the body. All animal food except milk are rich sources of iron. However, milk helps in absorption of iron because, it has got good quality protein. This protein is required in formation of red blood cells.

Government of India has rightly realised the disorder of anaemia and has characterised it as a malnutrition related disorder. Several programmes for health improvement of children and women in this country are beig run to generate awareness amongst women to improve their health through

locally available foods. Indigenous food are given preference over other foods because as they are regularly and easily available. One of the rich source of iron is green leafy vegetables. For preparing nutritious iron rich food, green leafy vegetables are cleaned, washed and cooked for two minutes. Extra water then boiled is retained for reuse. Fresh leafy vegetables are mixed with flour. Dough can be prepared by adding mild species and the left over water of boiled vegetables.This dough is very nutritious for preparing 'chapati', 'parantha' or 'puri'. Mashed leafy vegetables can be mixed with baby foods. For preparing 'raita' mashed vegetable is mixed in curd. Mild spices like, turmeric powder and 'rai' paste, and salt are added. Raita is kept for 2-3 hours before serving.

Q: What are other remedies for curing anaemia?

Ans: The other remedies would include the oral iron therapy along with the dietary modifications. This includes the oral inntake of iron plus folic acid tablets. One big tablet per day for 100 days for pregnant women and this would include 60 mg of iron plus 500 mg of folic acid, and one small tablet for children per day for 100 days and this gives 20mg of iron plus 100 micro g of folic acid. Apart from this, iron pots for cooking usual food of the daily diet also enhance the iron intake. The third strategy is to reduce the iron inhibitors i.e., tannin and phytic acids which could be accomplished by eating germinated, malted and fermentated cereals and pulses. These three things helps in reducing the concentration of tannin as well as phytic acid substantially.

COMMENTARY

Other programmes for curing anaemia and malnutrition are undertaken at 'Angan Vadi Kendras'. These centres are being run at village levels for providing nutritious supplementary foods for women and children. This supplementary food is prepared by steaming Dhokla and then butter oil is mixed before serving. It provides 300 to 600 kilo calories extra energy to malnourished children and 500 kilo calories to pregnant and lactating women, and 10 to 20 g protein is also obtain through this food. Regular growth monitoring is a feature of these centers. Government is also providing medical relief services at villages through primary health care centres. Frequently ANC, PNC and Anaemia cases are attended. People are aware of red iron tablets. This medicine supply is obtained from the respective district medical health organisations.

Although incessant efforts are being done at all possible intervention point, still more need to be done. A country wide education programme should be launched for eradicating anaemia. This will definitely improve work out put of Indian population, especially women.

*Participants were shown Hindi vesrion of this Video programme.