Editorial

Nutritional disorders: Pernicious anaemia.

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Description

Pernicious anaemia is a type of condition caused by less amount of vitamin B12 in the whole body. It is a form of vitamin B12 deficiency anaemia. Vitamin B12 helps our body to make healthy red blood cells & helps keep nerve cells in healthy condition. It is found in animal foods such as meat, eggs, fish, milk, and other dairy products. The common cause of pernicious anaemia is the lack of stomach cells which are used to make intrinsic factor. Intrinsic factor helps the body to absorb vitamin B12 in the intestine. The absence of parietal cells may be due to destruction by the body's own immune system. Pernicious anaemia can cause permanent damage to nerves & other organs if it goes on for a long time without being treated. It also raises the risk for developing stomach cancer. Complications caused by untreated pernicious anaemia may be reversible with treatment. A special protein, called intrinsic factor (IF), binds vitamin B12 so that it can be absorbed in the intestines. This protein is released by cells in the stomach. When the stomach does not make enough intrinsic factor, the intestine cannot properly absorb vitamin B12.

Discussion

Anaemia develops, causing paleness, weakness, fatigue, and, if severe, shortness of breath and dizziness. A severe vitamin B12 deficiency may damage nerves, causing tingling or loss of sensation in the hands and feet, muscle weakness, loss of reflexes, difficulty walking, confusion, and dementia. Vitamin B12 (cobalamins), with folate, is necessary for the formation and maturation of red blood cells and the synthesis of DNA (deoxyribonucleic acid), which is the genetic material of cells. Vitamin B12 is also necessary for normal nerve function. Good sources of vitamin B12 include meats. Unlike most other vitamins, B12 is stored in substantial amounts, mainly in the liver, until it is needed by the body. If a person stops consuming the vitamin, the body's stores of this vitamin usually take about 3 to 5 years to exhaust. People should not take high doses of vitamin B12 as a cure-all, but otherwise the vitamin does not appear to be toxic; consuming excess amounts of B12 is not recommended. Among older people, absorption may be inadequate because stomach acidity is decreased. Decreased stomach acidity reduces the body's ability to remove vitamin B12 from the protein in meat. However, the vitamin B12 found in vitamin supplements can continue to be well absorbed even in people with decreased stomach acid.

Conclusion

Usually, vitamin B12 deficiency is suspected when routine blood tests detect large red blood cells. Doctors sometimes suspect it when people have typical symptoms of nerve damage, such as tingling or loss of sensation. If the deficiency is suspected, the level of vitamin B12 in the blood is measured. Usually, doctors also measure the blood level of folate to rule out folate deficiency, which can also result in large red blood cells. For infants of vegan mothers, starting vitamin B12 supplements immediately after birth helps prevent vitamin B12 deficiency. People who have very low levels of vitamin B12 or symptoms due to nerve damage are usually given vitamin B12 by injection into a muscle. Injections, which may be self-administered, are given daily or weekly for several weeks until the vitamin B12 level returns to normal. Then injections are given once a month indefinitely, unless the disorder causing the deficiency can be corrected.

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