SESAME SEED, SOURCE OF VITAMIN T COMPLEX

by Royal Lee, D.D.S.

President, Lee Foundation for Nutritional Research, Milwaukee, Wisconsin © 1959 GODFREY THOMAS PUBLISHING CO. ALL RIGHTS RESERVED.

V itamin T was first discovered as a factor in meal worms and terthereby mites, the designation of "T" factor. (1) Small monkeys soon die in captivity unless fed meal worms.



Human use source

The source of vitamin T for human use seems confined to sesame seed and sesame seed oil. (Small amounts are present in animal tissue, liver and spleen in particular.) The human family appears to be able to get along in a wav without much vitamin T, although its use in supplementing baby food is very outstanding; the effect on infants whose progress has been suhnormal was such as to indicate "that an avitaminosis had been aholished." There were more consistent weight gains and there was a 15 percent increase in hemoglobin, the oxygen carrying pigment of the red blood corpuscles. Livid skin became normal and muscle tone was very definitely improved.

Protein and blood platelets

In test animals, a low protein diet caused a 23 percent death rate, where the same diet with vitamin T complex promoted a 100 percent survival. Vitamin T complex increases the blood platelets. (They average about 250,000 per cubic millimeter of blood and probably play a role in the clotting of blood.) Twenty drops a day of sesame oil administered to healthy children doubles the platelet count in three to four weeks. (1) In thromboeytopenic purpura (a disease characterized by the formation of purple patches on the skin and inucous membrane due to subcutaneous extravasation of blood) the blood platelets are much reduced, and the disfunction of the spleen has been found responsible. (8) It is highly probable that this disease is a state of acute vitamin T deficiency. The relation to spleen function may mean that spleen disease, enlargement, etc., is also a vitamin T deficiency.

Allergic reactions

Histamine is a powerful dilator of the capillaries and is a concomitant feature of allergic reactions. Test animals can tolerate the inhalation of histamine for three times the period otherwise effective for disablement if supplied with vitamin T. (4) (Note the effect on livid skin capillaries and on muscle tone in baby food use.) The common hruising lesions from slight blows, "black and blue" spots, may well be henefited by this same mechanism. Histamine opposes adrenalin in its effects and in this way vitamin T might put it into the class of an adrenal supporter, seeming to synergize with rihoflavin and pantothenic acid in this function. (2h)

Cellular growth, healing

Local application of sesame oil was found beneficial in burns and frostbite to promote rapid healing. The "effectiveness is notable where it is desired to accelerate cellular growth." (3) The blood platelets are considered as probable carriers of tissue determinants. (10) That would explain the need for platelets to catalyze the formation of thrombin in blood coagulation, the speeding of repair and healing, the improvement of growth rate and food assimilation in infants.

Practical examples

All this adds up to the presumption that vitamin T is a very important factor, that it maintains our stamina and resistance to stress and shock. Turkey is one country where sesame seed products are a long established part of the food pattern. Tahini, a liquefied sesame



butter, is used as we use butter or lard. How much stamina have the Turkish people? Here is a report on Turkish soldiers in Korea: Major William E. Mayer, an Army psychiatrist, in an interview reported by U.S. News and World Report (1956) said one third of U.S. prisoners taken by Communists in Korea yielded to Communist brainwashing and "caved in without being subjected to physical torture." He said one-third of our men in enemy hands died, but of the Turkish soldiers, . . . "several hundred held under approximately identical conditions, survived almost to a man." Physically, he said, the Turks were no better than our men, at the onset. But our soldiers . . . "lost even the will to live. They would crawl off in a corner, refuse to eat - without any disease whatever - and simply die." (Remember the lack of appetite in the baby needing vitamin T?)

Old Roman custom

Maybe the old Roman custom of using cakes of sesame seed and honey as an emergency ration for soldiers has more to it than we thought. They did know from experience that a man could travel farther on a given weight of that food than on anything else. The mental stamina in a soldier is as important as the physical. Too many people give up in an emergency long before they are actually physically unable to carry on. It might be said that civilization itself has been maintained by people who had that characteristic - the unwillingness to surrender to any odds whatever. The fact that there are so many people in Turkey over 100 years old may possibly be another effect of sesame seed and its vitamin T.

REFERENCES

- 1 Schiff, E., Herschberger, C., Jol. A.M.A. 110, 3:244, 1938. (Abstract).

 8 Traland & Lee, Jol. A.M.A., Feb. 5, 1944, p. 444.

 4 Kupka, E. and Gubler, H. U., Zeit. fur Vitamin-Hormon-und Fermentforschung 2(5-6) 403, (1948-49).

 2b Vitamin T., R. Martinez Callen. Rev. cspan. de Pediatria 6:363, 1952.

 3 Abstract, Am. Jol. Clin. Nutrition, Vol. 3, No. 1, p. 98, 1955.

 10 Lee and Hansen, Protomorphology, Lee Foundation, Milwaukec.

THE END