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Infantile Tetany---Its Cause and Cure

By Mrs. Helen C. Morling

THE setting for the following dialogue is laid in the offices of Dr. Diet-Trained, a specialist in children's diseases. First we see the outer or reception office, later an inner office used for examination and consultation.

Enter pretty little Mrs. Young-Mother with her infant daughter in her arms. Addressing the neatly uniformed nurse in charge, she says, "I have an appointment this morning with Dr. Diet-Trained; may I see him now?"

The nurse asks her to be seated and goes to inquire about this appointment. Returning promptly, she guides the mother and baby into the office, where the doctor is seated at his desk.

Dr. Diet-Trained is a busy man, yet one who is ready with sympathetic interest, keen intelligence and scientific training to meet all new cases. And because of his training in diet and nutrition, he is well able to find the source of most children's difficulties quickly and efficiently.

The doctor: "You have a healthy looking youngster there, Mrs. Young-Mother. What seems to be the matter? Why have you brought her to me?"

The mother: "Yes, doctor, she is a nice baby and was well until she had a convulsion a few months ago and three more convulsions since. She seems well, but what causes her to have these convulsions, doctor?"

After a few minutes of skillful questioning regarding the prenatal health and diet of the mother, the birth of the child and the diet of the child since birth, the doctor replied: "There are three causes of tetany or convulsions in children and your answers have eliminated all but the possibility of one cause and that is a probable deficiency in diet."

"But, doctor," anxiously interrupted Mrs. Young-Mother, "what is infantile tetany and what causes it?"

"That is what I was leading up to," answered Dr. Diet-Trained, "and I will be glad to explain further.

"Infantile tetany is a disorder associated with low calcium rickets. Tetany is the same type of deficiency disease as rickets. It is cured and prevented by exactly the same means and differs from rickets only in the fact that the

salt equilibrium in the blood happens to assume a special form. Tetany is due to the taking away of calcium from the tissues, while in rickets there is a pathological inability on the part of the bones to build calcium."

In the meantime, the nurse has undressed the baby and the doctor exam-



Mrs. Morling's Baby Daughter

ines her thoroughly and finds her normal as to weight, height, physical and mental development, except that tapping on her cheek bones and knees results in a twitching of facial muscles characteristic of children subject to tetany. When the examination is complete and the nurse has dressed the child, the doctor tells the mother that he will give her a brief review of what has been done to remedy the disease, a diet that she should follow, and some suggestions for treatment with ultraviolet light.

Mrs. Young-Mother very gladly settles herself, with the child on her lap, to listen to the doctor, whom she feels can help her in this problem of caring for her baby.

Dr. Diet-Trained continues: "Rickets is not influenced by calcium feeding, while tetany can be caused to practically disappear by the administration of calcium. Doctors Howland and Marriott have shown that any agent capable of raising the calcium concentration of the blood to a level within 20

percent of the normal will cure active manifestations of tetany. The demonstration of a low concentration of calcium in the blood serum is a valuable aid in diagnosis of infantile tetany, and the demonstration of its return to normal is probably the most reliable sign of the cure of the disease. Even with cod liver oil and calcium therapy the return of serum calcium to a normal figure may be very slow, although the clinical manifestations may disappear fairly promptly. Both latent and manifest tetany have been cured by irradiation with the mercury vapor quartz lamp.

"The calcium taken into the body through the food must be retained in the body in order that the necessary amount of calcium be stored to meet body needs. Calcium retention can only be secured by a favorable degree of blood alkalinity, leading to a prevention of too high degree of acidity in the urine. Hence, calcium lactate combined with sodium lactate in the form of double salt of calcium and sodium lactate is valuable, as the sodium lactate easily passes into sodium bicarbonate, which is indispensable for the alkalinity of the blood.

"From a dietary viewpoint, foods containing calcium or vitamin D should be included liberally in the diet. Milk is essential and is our greatest source of calcium. Nutrition experiments have been conducted on 21 children; the results of which indicate that optimum storage of calcium is made when the diet contains one quart of milk per day for each child. This, with a normal allowance of other foods, will usually mean a daily intake of one gram of calcium for the growing child. Children do not seem to utilize the calcium of vegetables as efficiently as they do that of milk. In the experiments reported by Miss Hawley, the calcium balances were more variable and always less favorable when vegetables replaced about half of the milk as source of calcium.

"Egg yolk is as efficient a protective food as milk. One egg yolk should be given daily. Egg yolk in small amounts furnishes vitamin D, which enables the body to mobilize and utilize economically the apparently limited sup-

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Infantile Tetany

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ply of calcium in the diet. It is invaluable in diets low in milk, as are the diets of Chinese children.

"Cod liver oil also furnishes this antirachitic substance known as vitamin D. During the more recent years, well controlled experiments, both on rats and on the human infant, have demonstrated beyond criticism the efficacy of cod liver oil in the prevention and cure of rickets. This also applies to tetany as it is the same type of deficiency disease as rickets and is prevented and cured by exactly the same means.

"Now, Mrs. Young-Mother, I want to conclude this consultation with a few suggestions regarding the treatments with ultra-violet light.

"It will be necessary for you to go either to your physician or to a hospital for this quartz-mercury lamp treatment. From this source of artificial sunlight your baby will receive the beneficial rays which have the power to penetrate the skin and to act upon substances found there, in a way to form vitamin D, which in turn assists the body to use the calcium brought into the body through the foods. As I stated earlier this morning, tetany has been cured by means of irradiation with ultra-violet rays.

"Do not be alarmed if your child continues to have slight convulsions for a time, but follow the diet outlined faithfully and start the ultra-violet irradiation immediately, and I feel sure that she will respond by a cessation of this tetany."

Mrs. Young-Mother departs with her young daughter, feeling very grateful and much encouraged.

—Makes a Girl Healthy

(Continued from page 4)

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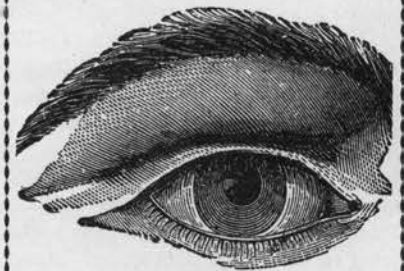
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