

MILK AND THE ADRENALS

H. G. Bieler, M. D.

The dictionary defines an Endocrine gland as a glandular organ which takes nourishment from the blood stream, transforms this nourishment into new compounds and finally secretes these new substances into the blood stream. Without these substances the body cannot grow or function normally. So again, I must drag out of the closet of obscurity the large gland so carefully hidden away by the medical men, because they cannot understand its chemistry and make it behave with drugs; by the surgeons because it defies all attempts to be whittled upon. According to the definitions, isn't the liver an endocrine organ? Let Endocrinologists befriend this large gland, in fact the largest gland in the body, let us realize that as a synthesizer it puts all the other glands to shame and as a vitamin producer it is second to none. Let Endocrinologists be foster father to this long forgotten and neglected organ, for what is more fitting than it live in the realm of Endocrinology where it lawfully belongs.

Now when milk is taken as food, if the chemistry of the liver is normal, no harm is done, for the milk proteins are easily synthesized into our own body proteins. It is only when the secretions of the liver are toxic and the bile is acid in reaction that trouble occurs. It is also important to remember that milk is the food for the growing calf, which doubles the weight of its bones every month for the first three months of its life. To make this possible, cow's milk must and does contain a much higher calcium content

than human milk. Sherman of Columbia University, in his study of milk, found fifty-eight grains of calcium to the quart of milk. He also showed that the human growing child cannot utilize more than five grains a day. Again, for the rapid growth of the calf, a much larger percent of protein is needed, and this we find in the casein. This large amount of protein gives much energy to the calf, and it can get along with a small amount of milk sugar. The human baby needs less protein and less calcium and more sugar, and these proportions are found in human milk. When we modify cows milk for the baby we must not forget this.

If the liver secretions and bile are toxic or acid, the curd of milk, usually formed in the stomach, instead of being soft and flocculent, becomes as hard and tough as rubber and creates much indigestion and constipation. The whey, being alkaline and full of calcium, neutralizes the acid bile, resulting in urate of lime, a muddy-white substance which can clog the bile ducts, settle in the gall bladder and easily give rise to gall stones. This same substance gives the white coating to the tongue as well as the disagreeable odor. (The odor of Limburger cheese comes from the putrefaction of the whey.) If this toxic combination is secreted into the muscles, the result can be myositis ossificans. If it is secreted around arthritic joints calcification can result and this is the same calcification we see in tubercles and lymph glands and in the middle walls of the arteries. Remember that the tongue is the barometer of the liver. The type of coating, the edema, the inflammation of the different kinds of papillae

and their eventual atrophy, all indicate certain stages of liver damage. In liver disease we must be careful how we use milk as a dietary protein, especially in older people. Dr. Leonard Williams of London was right when he said that a great many old people were floated into their coffins on milk.

Nevertheless, milk or its constituent parts, when properly used, is one of the best nutrient proteins that can be offered as a rebuilder of body tissues. Hippocrates used it for the cure of tuberculosis. Weir Mitchell accomplished wonders in his practice and much of his therapy consisted of the milk diet combined with plenty of rest. Many of the states which we now classify as hypo-adrenia respond perfectly to the milk diet. Most modern milk diet sanatoria stress the importance of much rest while taking milk at half hour intervals. Four and one-half to seven quarts are given daily. The milk is always fresh raw milk, and most of the cream is removed. Here is a quotation from Charles S. Porter, M. D., who has given the milk diet cure to thousands of patients, describing the subjective response to the milk diet: "Within two hours after commencing the diet, the action of the heart will be accelerated and within twelve to twenty-four hours there will be a gain of six beats to the minute. Within two or three days there will be an increase of about twelve beats to the minute; the pulse will be full and bounding; the skin flushed and moist; the capillary circulation quick and active -- There is an increase in the general warmth of the body -- The stimulation of a full milk diet is very similar to the effects of alcoholic stimulation on the circulation, but the after results are entirely different. -- The volun-

tary muscles of the body become firm and solid, almost like an athlete's limbs. -- There is increased power of the intestinal muscles, resulting in several copious bowel movements per day." I ask you now, isn't that a perfect picture of what we like to call "adrenal response?"

The following case history describes clinical results in a patient suffering from advanced hypo-adrenia. The patient, a Missouri farmer, age 64, was too weak to sit up; suffered greatly from cold and, even with six hot-water bottles, his rectal temperature refused to go above 93 degrees. There was a pallor of the skin, cyanosis of the finger nails, moderate dyspnea, advanced auricular fibrillation, pulse 72, blood pressure 100/90. There was a great deal of intestinal gas, and frequent eructations from the stomach, which decidedly disturbed his rest. There was moderate edema of legs and feet, even while resting. The general asthenia was intense.

Treatment was begun on Jan. 27, 1929, and consisted of the sweet curd of milk mixed with finely chopped green lettuce. A teaspoonful every fifteen minutes the first two days and nights. Then the dose was gradually increased and given every half hour, during fourteen hours of the day. His weight was 122 lbs. In two days he began to sleep, his heart was more regular, but he was still intensely cold. In five days he was warmer and the cyanosis was gone. In eleven days his edema had disappeared and his weight was 114 lbs. (A small weight for a man six feet two inches.) In eighteen days he felt stronger, much warmer,

and no vertigo when erect. His nails were pink and the irregularity of the heart had almost entirely disappeared. Thirty-two days after the treatment was started, he returned to Missouri, feeling well and strong. The weight was 121 lbs. He was still on the same diet April 5th and his weight had advanced to 148 lbs. May 2nd, it was 153 lbs. In 1931 he resumed his farm work, and when last heard from, in 1938, was still "going strong." The amount of curd was gradually increased until he was taking the curd of seven quarts of milk daily. No other food was given except the lettuce. When first seen this patient was in a far advanced state of adrenal exhaustion. To whip what was left of his poor adrenals, by giving salt solutions, stimulants or extracts would have resulted in myocardial collapse. The protein colloids of the casein acted as a heart stimulant and at the same time offered elements which the liver could utilize for general body repair. The adrenals gradually became recharged with phosphorus. Every cell in the body was renewed and a state of health ensued which would have been impossible had a drug therapy been used.

The statement of Hippocrates: "Thy food shall be thy remedy" is as applicable today as it was centuries ago.

MILK

Part II

H. G. Bieler, M. D.

Fifteen years have passed since the writing of Part One. It is gratifying to report that raw milk is still obtainable in the Los Angeles area. Unfortunately, few such areas exist today in the United States. Here in Pasadena, many dentists and doctors and nutritionists have demanded raw milk for their patients and children. The Roger Jessup Farm delivers upwards of fifteen thousand pints daily, the greater part of it consumed in this area. Another large dairy daily delivers eleven thousand three hundred and forty pints of certified raw milk, and eighteen hundred pints of Grade A raw milk. One of the best in Pasadena is the Glenview Farms Dairy, which sells over six hundred pints of Grade A raw milk daily of a most remarkable quality. I have inspected this dairy many times and have never seen such efficiency and cleanliness. The reputation of their milk is so excellent and the quality of its taste so enjoyed that it is not necessary for them to deliver their product. People come and get it and are thankful for the opportunity. But Pasadena and Los Angeles are the rare exceptions, the rest of the country still being under the spell cast by fear and propaganda.

But "truth will out." On July 15, 1952, there was held a most important meeting of the Foothill Chapter of the American Academy of Applied Nutrition. A selected audience consisting of doctors, dentists, veterinarians and nutritionists was invited to this meeting in Arcadia, California.

The subject for discussion was "Raw versus Pasteurized Milk." The panel consisted of one scientist, Michael Walsh, M.Sc., T.R.I.C., A.I.Ch.E.; two doctors of Medicine, Robert Bingham, M. D., and F. M. Pottenger, Jr., M. D.; one veterinarian, Roger Jessup, Jr., D.M.V.; one dentist, Harold Stone, D.D.S.; and Mr. Dawson and Mr. Brockmeyer, representing two large dairies; Mr. Brockmeyer acted as moderator.

The discussion was opened by the medical doctors. The fact that the chemical molecule of milk is destroyed by heat was shown to have been clinically proved. The fact that Undulant Fever in cattle is in reality a disease of malnutrition and that it can be eradicated by the use of a more natural diet, plus the addition of cobalt, was stated by Dr. Pottenger. He also pointed out the extremely low incidence of so-called "Undulant Fever" now more popularly known as "Brucellosis." In the Pasadena area, which now comprises about 150,000 people, not more than three cases a year are reported. Since many diseases which are characterized by chronic fever could be mistaken for brucellosis, diseases such as glandular tuberculosis, a typical typhoid, etc., the diagnosis of undulant fever is often questionable. At present the main proof of the disease is a positive skin test. Concerning the value of this test, the most eminent Karl F. Meyer has this to say: "Every physician should remember that the clinical significance of the intracutaneous "Brucellin" or "Abortin" test is comparable to the tuberculin test in the diagnosis of tuberculosis. A positive test merely denotes that the patient has been sensitized at some time by contact with the

Brucella. Since the positive reaction persists for years, and possibly for a lifetime, the value of the reaction is decidedly limited. Many persons suffering from diseases other than brucellosis may give a positive 'brucellin' test." (California and Western Medicine, Vol. 61, No. 25, Nov. 1944.)

It has always been known that the fresher the milk the more valuable its quality as a food. Mr. Dawson, one of the dairymen, reported an experiment illustrating this fact. When cows gave birth to twin calves in his dairy one calf was allowed to suck the mother and the other was "bucket-fed." The bucket milk was raw but had been chilled and was from twelve to twenty-four hours old. As the calves developed, the difference in growth was plainly apparent. As much as four inches difference in height was noted while the bucket-fed calf was less vigorous and lacked the glossy coat of the former. That pasteurization of milk can result in a deterioration fatal to animals was shown by Dr. Pottenger in his famous cat experiments. John Thomson of Edinburgh reports from England another test with twin calves, one suckled, and the other fed on pasteurized milk. The first was healthy but the second died within sixty days. This experiment was repeated many times.

Most people have the idea that buttermilk is particularly nourishing. While this may be true of the kind churned on grandfather's farm, I have always maintained that today's commercially dispensed buttermilk represents the garbage of the dairy, and that if it were not for the alcohol and lactic acid and salt content it would be quite unpalatable and therefore

unpopular. This conclusion was confirmed by another interesting report at the Arcadia meeting, blushing rendered by one of the dairymen. Describing the manufacture of so-called buttermilk, he admitted that it never saw a churn, that it was made from all of the old pasteurized milk, that it was then boiled and cultured and that finally a few specks of butter fat were added!

The representative of one of the largest of the Los Angeles area dairies voiced the general conclusion of the meeting when he said first that certified raw milk is the only kind of milk fit for the proper nutrition of the human being. Second, that people still have the erroneous idea that pasteurized or homogenized milk is a superior article. Third, that the average dairyman is not willing to take the time, trouble and extra expense involved to produce certified or even grade A raw milk.

In the long run we pay much more for the treatment of diseases resulting from the use of pasteurized and/or homogenized milk than we would pay for clean raw milk. But diseases resulting from a degenerated type of protein in the diet are insidious and develop slowly. Therefore, it is difficult for people to understand the danger of the constant use of the wrong kind of milk.

MILK

Part III

H. G. Bieler, M. D.

Five years have passed since the writing of Part Two. It is gratifying to report that raw milk is not only still obtainable in the Los Angeles area, but that the Los Angeles County Medical Bulletin now carries a full page advertisement stating "there has not been a single case of milk-borne disease traced to the use of Certified Milk in over twenty-five years." A photographic copy of the page is included in this paper. Another Certified Dairy located at Monrovia, California, offers certified raw goat's milk and for the new born, no substitute comes nearer than mother's milk. The results of the crusade are most gratifying.

It is interesting to look back for a moment. About thirty years ago I addressed the Woman 's Club in South Pasadena, California. The lecture was on the subject of "Raw Milk versus Heated Milk." Thereafter, the South Pasadena schools used certified raw milk. This lecture was criticized by the American Medical Association and the Association had the famous Dr. Rosenow warn me that pasteurization was most necessary. About that time at least a half dozen of good dairies put a reliable grade of raw milk on the market. There was no increase in the incidence of Undulant Fever. A milk was available in which (1) organic calcium and phosphorus were not lost; (2) iodine was not lost; (3) Vitamins B and C were not destroyed; (4) all of the B vitamins remained intact; (5) practically all of the enzymes were saved; (6) the antianemia factor was not destroyed; (7) the germicidal property of the milk was saved.

Nearly a hundred years ago, J. H. Salisbury, A.M., M.D., LL.D., made the following observation recorded in his book "Alimentation and Disease." He states on page 17: "After weaning, cow's milk should take the place of mother's milk. As far as possible, this should be taken as soon as milked, while it is still warm and full of animal life and heat. In this condition it is readily digested and assimilated. The difference between milk alive and warm from the cow, and cold, dead milk, is fully understood by breeders of fine stock. They know well that a calf which is allowed to suckle its mother is more than three times the size - when a year old - than one of the same age and breed which has been fed on cold, dead milk. The one which sucks the warm, vital milk is large, robust, trim and elegant in shape, and vigorous in constitution, while the one which is fed on cold, dead milk is "pot-bellied", pointed at both ends, ungainly in shape, small, and has the appearance of belonging to an inferior breed.

"This fact should impart a valuable lesson to those interested in rearing children, and by taking advantage of the stockbreeder's knowledge, show them how they may gradually develop a higher and more perfect physical and mental type of the human organism."

The tendency today is toward the use of synthetic, processed and chemicalized foods, mostly procured from cans. Milk is one item that defies tampering and it is a privilege and a gratification to be able to obtain it, in at least a few places, in this great country of ours.