

Los Angeles, January 31, 1953

A FEW COMMENTS ON THE RELATION OF ABNORMAL HEART SOUNDS TO MALNUTRITION

Dr. Royal Lee

Extra systoles, heart block, fibrillation: These phenomena are due to the loss of conductivity of the heart tissues for the impulses that otherwise maintain synchronism of the contractile rhythm of the heart muscle.

Heart block first starts as a skipping, then finally becomes a "pulsus alternans" situation, the heart muscle has become so insensitive that it responds only to a "second call" from the control apparatus that normally regulates pulse rate.

The cause is a deficiency of the cereal germ vitamins, B₄ in particular. This fraction of the B complex is essential to normal function of motor nerves. It has also been called the "anti-paralysis vitamin". It is inseparable from natural thiamin; never found in synthetic thiamin.

It is, further, the physiological remedy for enlarged heart, for it is this factor in the B complex that maintains vascular and muscle tone.

A continued deficiency of B₄, of course, results in more or less degrees of nerve and muscle degeneration, but all the above effects of its deficiency usually respond quickly in some degree to its administration.

An enlarged heart, with its distorted and leaking valves, as shown by murmurs, usually becomes almost normal in its performance except for a prolonged first sound - the indication of tired muscle, within a few minutes after ingestion of the natural B complex carrying the wheat germ concentrate. Fibrillation responds as quickly if the degenerative changes have not progressed too far.

Heart block requires more time. Its presence indicated a relatively extended degree of degeneration.

Muscular fatigue and hypertrophy usually is treated with digitalis. A new extract of heart muscle, known as Cardiotrophin seems to be better for the purpose. Its action is quicker than digitalis when tested on the patient with a weakened and flabby heart, as shown by the weak and extended first sound.

The second sound of the pulse is commonly supposed to be made by the closing of the valves at the end of the heart contraction, in fact later than this, at the end of the out-flow of blood, the blood reversal tending to close these valves. If the second sound at the aortic microphone position is accentuated, the general conclusion may be made that the systemic blood pressure will be found above normal. (It is important to distinguish an accentuated second sound from a diminished first sound.)

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If the pulmonary system happens to be engorged and hypertensive, the accentuated second sound of the pulmonary position will be definite.

This is common with patients having hypoadrenia, and they will complain of distress in the chest on exertion due to this congestion. Vitamins to support the adrenals are indicated. Remember cortisone and probably the other adrenal hormones require vitamins C and B complexes for their formation. These patients usually do very well if they get proper natural vitamin supplements. They are incipient asthmatics, and need adrenalin. Their systemic blood pressure is usually low.

Sometimes the second sound is absent or barely perceptible in the mitral valve position of the microphone. One or two vitamin F tablets usually restore the second sound here within a few minutes.

Since we know that this vitamin increases the supply of ionized calcium required in muscular activity, it is probable that the absence of the second sound here is because of consequent muscular incompetence - the contraction losing its vigor at the end of the effort, permitting a more gradual slowing of the blood output than normal, thereby eliminating the second sound at this valve.

It is important to note the rest period duration - the time between the end of the second sound and the next first sound. If it is shortened to where it is no longer than the contraction period that follows the first sound, a so-called "tic-tac" rhythm is produced.

This is a serious state of damaged heart muscle - usually an indication of coronary insufficiency. It responds slowly to the use of the vitamin G complex and the E₂ fraction. Both these vitamin products are vasodilators - the E₂ as rapid as nitroglycerine, and useful for the same purpose, but far more constructively. (Certainly, it is unsound to use a poison as a substitute for a food.)

In the angina pectoris case, E₂ is often effective after nitroglycerine has failed.

Vitamins E₂ and the G complex are vasodilators, essential for the coronary and angina patient. The B complex is bad for these patients until they have had their deficiency of the vasodilators taken care of - otherwise their acute symptoms may be aggravated.

There is a little confusion regarding the vaso-constrictor and vaso-dilator effect of the vitamins, hormones and drugs because the dilation of the vessels or capillaries that are in

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the walls of the arterioles will promote constriction of their muscular fibers by supplying fresh blood. Therefore a vaso-dilating factor may be a vasoconstrictor for certain areas, and vice versa.

Adrenalin is a vasoconstrictor for most of the body, but is a vaso-dilator for the coronary and lung vessels. The vagus nerve acts to decrease the blood supply to some tissues, increase it for others. Therefore, it is essential to follow the empirical rules for the use of many of these principles.

Another note: wherever adrenalin is used, be sure to use Parke-Davis' natural adrenalin. It has a much better action than the synthetic imitation, will not cause toxic side effects and after pains due to pyrogenic impurities in the synthetic.

Eye specialists have found the synthetic product entirely too irritating for use in eye preparations.

Paroxysmal Tachycardia: This is an apparent loss of pulse rate control normally exercised by the sympathetic nervous system. Potassium deficiency seems to be the most frequent cause - the use of organic potassium as available in Minaplex tablets is usually effective in bringing the control back into normal rates within 15 or 20 minutes. (In two to three tablet dosage.)

Otherwise, the load on the heart is mainly regulated by the oxygen demand of the tissues. This demand has been found to increase as much as 250% by reason of vitamin E deficiency, which normally inhibits unnecessary tissue oxidation. The vitamin C complex is necessary to maintain the red cell oxygen carrying capacity, a deficiency may cause a loss of half the capacity of the blood to carry oxygen. It is very obvious that these two vitamin complexes can be a matter of life or death, and tells us why test animals put on E deficient feed die from heart failure before any other symptoms are observable, that might arise from the deficiency.

That is, no doubt, why we have so much heart disease in this country, while it is almost unknown in China, where refined foods are also unknown.

The patient who presents himself with a marked shortness of breath is usually relieved within fifteen minutes after taking three or four tablets of vitamin C complex.

The patient who is kept awake with a "pounding heart" after eating too much is usually relieved in the same period after taking two or three "Minaplex" tablets, the organic mineral complex taken from Alfalfa and Sea Lettuce.

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Nervous tension also may affect the heart in this manner, the basic disorder may be mainly the potassium deficiency that incapacitates the sympathetic nervous controls.

The use of unrefined sugar and whole grains in place of white flour products and refined sugar is an important part of the advice needed by this type of patient, unless he prefers to pay the higher price of the minerals in tablet form for the rest of his life.

Hypertension can be aggravated, too, by potassium deficiency, but there is usually other contributing factors. The most common one is liver damage, and this will be shown by a high sedimentation rate. The remedy then is the fat-metabolizing complex that is needed for liver regeneration, available as a beet-molasses extract sold as BETALCO tablets.

The active factors are betaine, choline and the alcohol-soluble minerals.

Where cholesterol accumulations are involved, the use of the buckwheat juice tablet RUTAPLEX will be found indispensable. It releases the cholesterol from the tissues. If the liver can take it out, the blood cholesterol will not rise, may even drop; but if the liver cannot do its job, the blood pressure will drop and the blood cholesterol will rise at the same time.

To promote the disposal of the cholesterol through the gall bladder and keep it in solution meanwhile, the beet leaf extract "Betaris" tablets will be found very helpful. They are indicated in all gall bladder troubles, such as gall stone formation - simply a state of bile in which cholesterol is precipitated out instead of remaining normally in solution. The use of beet greens in the diet will accomplish the same thing.