

VITAMIN C IN THE PREVENTION OF COLDS.¹

By NORMAN W. MABKWEILL,
Brisbane.

ON two occasions I have had the therapeutic aspect of vitamins acutely brought home to me. In the epochal years of 1912 to 1914, I was engaged in clinical research on the beriberi heart. Nearly thirty years later—at the end of 1941—I found myself in medical charge of men whose diet was unavoidably deficient, not in vitamin *B*₁ this time, but in vitamins *A* and *C*. More than half of us contracted a vesicular rash, occasionally generalized, but as a rule localized to the arm-pits. At that time also, another unavoidable exigency demanded wholesale work with "K wire". Most of the men got scratches, generally on the legs, which invariably became more or less infected. A large proportion of these men had a rise in temperature. In four cases, this rise was to over 105° F., with septicaemia and no local reaction. Two of these four men became stuporose, and had difficulty in taking by mouth

¹ Read at a meeting of the Queensland Section of the Royal Australasian College of Physicians on September 17, 1947, at Brisbane.

"M & B 693" tablets—of which, fortunately, there was a good supply. During resolution of the septicaemia, abscesses developed at the site of the original lesion. At the same time influenza was epidemic, and there were several cases of pneumonia. One of these patients had meningitic symptoms, and the condition of another patient, who was in a deep stupor, clinically resembled cerebro-spinal meningitis. Another case, probably one of infected sinuses with an acute exacerbation, also resembled cerebro-spinal meningitis. No bacteriological investigation was possible. There were no deaths, thanks to the sulphapyridine, which was given in very large doses to those patients who had meningitic symptoms. A little of a multiple vitamin preparation was available for the dangerously ill patients; but this had to be given sparingly at first. As the supply increased, the polyvitamin preparation was given to patients whose temperature was between 102° and 103° F. An increase in the rapidity of resolution seemed certain. Sulphapyridine had been given as a routine measure to any patient with a temperature over 101° F. An experiment was now made in the case of a patient whose temperature was nearly 102° F., and who also had the usual enlarged glands at the insertion of the infected limb; sulphapyridine was withheld and six of the polyvitamin capsules were given within twelve hours. The resolution was at least as fast as in similar cases in which the sulphonamide drug but no vitamins was given, the temperature falling to and remaining normal within about a day or so. The supply of vitamins had become more plentiful, and the treatment for the moderately ill patients was now vitamins only, with continued success. Indeed, the results were dramatic.

About eighteen months later—in 1943—I had charge of about 50 patients suffering from typhus fever of the scrub variety. All the mildly affected patients stated afterwards that they remembered nothing of the two weeks when they were ill. About ten of the patients developed serious complications, mostly pneumonia; one patient had a urinary lesion and protracted tachycardia, and one patient had pneumonia which was followed for three weeks, by signs of encephalitis, manifest mainly in relation to the *substantia nigra* region. Meanwhile had come to hand the wound-healing dicum of protein and a gramme of vitamin C daily for three days, followed by 100 milligrammes a day. I had fallen into the practice of following that method, and moreover of using it also in all cases of infection, from any cause, which seemed likely to be dangerous. As well as ordinary cases of pneumonia, sulphapyridine and later sulphadiazine were given in pneumonia complicating scrub typhus, and in addition, the patients received the above-mentioned dosage of vitamin C. Every patient recovered. This has continued to be my practice until the present day.

During the last three years I have ordered vitamin C in large doses for the aborting of colds. At first the dose given was half a gramme. It then became apparent that a larger dose than half a gramme was indicated; it was also observed that the sooner the large dose of ascorbic acid was given on the onset of a cold, the more likely was the cold to be aborted.

The number of patients who have taken large doses of vitamin C to abort colds during the last three years is considerable—large enough to allow an opinion to be formed, at any rate as a preliminary to more scientific research.

The question of suggestion, of course, arises. Many of us used to think that that was the rationale of ammoniated quinine treatment. But a cold has been aborted by vitamin C in patients who have just developed it, with no other remark from me than "take this". My experience seems to show that, if the dose is given both early enough and in large enough quantity, the chances of stopping a cold are about fifty-fifty, or perhaps better. It is an amazing—and comforting—experience to realize suddenly in the middle of the afternoon that no cold is present, after having in the morning expected several days of throat torture. If suggestion is the reason, then let us be thankful for suggestion. Nevertheless, clinical experience with vitamin C and wound healing seems to show that

a physiological factor is operating. Butler and Thomas recommend "the administration of adrenaline or of ascorbic acid to relieve toxic symptoms from histamine which is being given to patients suffering from migraine". With regard to the aborting of colds with vitamin C, the facts, as far as I am in a position to discern them, seem to be as follows.

1. Three-quarters of a gramme or more of ascorbic acid is indicated immediately a cold is felt to be present.

2. The sooner the large dose of vitamin C is given on the onset of the cold, the more is it likely to be of value.

3. If the cold has not been aborted in about three or four hours or so, another half-gramme or more of vitamin C is indicated.

4. If the cold is still present on the second day, at least another gramme of vitamin C is indicated, and that dose may be repeated on the third day, the dosage decreasing thereafter.

5. If the large dose of vitamin C is given very soon after onset of the cold, it is aborted in the majority of cases.

6. In colds which continue, provided the first dose of vitamin C has been given early enough, every patient benefits from vitamin C administered in that manner. Patients who have suffered from repeated colds in the past agree on that.

7. I have never seen any ill effects whatsoever from vitamin C and I do not think that there are any. If more vitamin C is taken than is necessary for requirements at the time, it seems to be just excreted and wasted. This product has become much reduced in price lately.

8. Some people seem immune from colds for an indefinitely long period. Other people catch cold in most trivial circumstances. The reason for such an extraordinary difference may be local; it may also be allergic or it may arise from some other constitutional condition which we do not yet understand—there is no doubt that a cold may come on during a psychopathological upset. In some cases, after a cold has been stopped by vitamin C, another cold will commence after an interval of days or a few weeks. The second cold may be stopped likewise, only to be followed by another cold not long afterwards. It seems as if a period of infection at more or less long intervals is necessary to some people to re-create immunity. But even for such patients, a slight cold is better than a crippling cold.

9. If a cold continues, and if vitamin C is adequately taken, patients who used to suffer the torments of a dry, rasping throat growing increasingly worse for three days or so, no longer suffer throat torture, and nasal secretion appears within a day or so, often within a few hours.

10. So far as I am aware, only one firm in Australia markets an ascorbic acid tablet of over 50 milligrammes. Patients are not the only group of people who grow panicky when 15 or 20 tablets are ordered in one dose. That firm puts up a tablet of a quarter of a gramme. Three or four of such tablets may be ordered immediately on a patient's contracting a cold.

11. A tablet of 333 milligrammes, or even of 350 milligrammes, of vitamin C seems indicated as well.

Conclusion.

These opinions are based on experience of cases running into — over three figures. But such experience is more or less casual and by no means scientific. Many patients in a consulting physician's practice are not seen again, and in the case of those patients who are, "colds" when not present are apt to be lost sight of in the face of more important conditions. Nevertheless, the results seem to warrant investigation by some research body with the requisite scientific opportunities.

Reference.

- ¹ S. Butler and W. A. Thomas: "Intravenous Histamine in the Treatment of Migraine. Preliminary Observations". *The Journal of the American Medical Association*, Volume CXXVIII, 1945, page 173.

Markwell 1947

This text was scanned and changed to characters using an Optical Character Recognition program. The program may generate a few errors, but they have been corrected, although few may remain.

This file (version Nov 23, 2007):

http://www.ltdk.helsinki.fi/users/hemila/pauling/Markwell_1947.pdf

Harri Hemilä

Department of Public Health

University of Helsinki, Helsinki, Finland

harri.hemila@helsinki.fi

Home: <http://www.ltdk.helsinki.fi/users/hemila>