



Potassium Bicarbonate to Ameliorate Gout

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Abstract

It has been found that potassium bicarbonate supplements make the urine sufficiently alkaline that uric acid can be efficiently kept soluble and thus successfully excreted. This will prevent the destructive effects associated with gout. Some of the circumstances causing gout are discussed as well as some other ameliorators such as cherries, coffee, and orotic acid.

Introduction

One of the arthritic diseases is known as gouty arthritis in which sodium urate crystals are deposited in cartilage, especially in the feet. 90% of victims are men, perhaps because men are more likely to come in contact with lead, a kidney poison. The crystals are thought to be ingested by white blood cells and produce inflammation by rupture of the lysosome sacs and release of their contents [Turner]. Urate is the major end product of purine (nucleoproteins) degradation in higher primates in contrast to most other mammals because of the genetic silencing of hepatic oxidative enzyme uricase [from Wikipedia]. The kidney plays the dominant role in urate excretion, with the intestines accounting for about one third as much. The kidney excretes 70% of the daily urate production [Naohiko]. The medical profession currently almost exclusively uses chemical based medicines to cope with gout or palliatives.

Discussion

Lin has statistical evidence linking gout to lead poisoning [Lin 2002]. The lead poisoning makes the aldosterone system insensitive to potassium concentration and increases the potassium content of the blood plasma [Gonzalex]. The blood lead content is no indicator of toxicity and the status must be obtained with an EDTA mobilization test [Batuman]. Lead level in the body is significantly correlated with urate excretion and gout [Lin 2002]. Ethylenediaminetetraacetic acid chelator of lead has successfully increased uric acid excretion [Lin 2001]. Fluoride has been suggested to increase lead intake [Masters]. Other poisons than lead may move one a

little closer to gout also, such as timalol (Blocadran) combined with hydrochlorothiazide and amiloride (a diuretic [Greenly]). I also suspect that toluol or some other chemical in acrylic automobile enamel may be able to trigger gout, from personal experience and I also suspect echinacea herb.

The initiating factor is probably usually lead poisoning though [Wright] [Batuman]. There is an association in peoples minds between gout and rich foods and lifestyle, probably because people with gout have trouble excreting nitrogen in a soluble form, which nitrogen is high in meat, and perhaps also because wine bottles and plumbing used to contain lead, which last were only available to affluent people in the distant past. Until such time as the matter is elucidated, it would be a good idea to stop eating lead, eat less proteins (especially purines), and not allow any potassium to be lost from one's food at least if you have gout. It may be that proteins from low fat dairy products may not exaggerate gout.

POTASSIUM and GOUT

I have heard of a doctor who gave his patients potassium losing diuretics and thus triggered an attack of gout. By adding a potassium supplement he was able to remove the gout. A medical doctor respondent has used potassium supplements for years for gout [private communication]. Gout can be triggered by the same agents that cause potassium losses such as fasting, surgery, and potassium losing diuretics [Rodman]. A potassium deficiency can increase urate levels in the blood [Davis] so there is a circumstantial connection. Urate kidney stones form during gout in a 10-30% of cases [Colton]. Making the urine less acid with potassium citrate or sodium bicarbonate is a current treatment for kidney stones [Shekarritz] [Rodman]. Potassium citrate has been successfully used to eliminate urate stones and sodium bicarbonate did not prevent their formation [Pak]. I suspect that potassium bicarbonate or citrate would be preferable to potassium chloride. Potassium chloride added to a junk food diet should be equivalent to adding hydrochloric acid to a nutritious diet. I have rapidly removed gout symptoms by large potassium bicarbonate supplements several times. By rapidly I mean several days. 1000 milligrams per day should be enough for adults and will bring a junk food diet almost up to normal (3500 milligrams per day). If it is a diet as eaten by black people in Georgia [Grim], 2000 or more would be necessary. If the patient's kidneys are

damaged such as not retaining potassium well, more than the above may be necessary. Potassium bicarbonate may be obtained from organizations selling it as a wine additive. Research to determine this hypothesis would be very desirable.

Cherries have been shown to decrease urate in the urine of healthy women [Jacob], so they may have some therapeutic value. Some support to this possibility is that one half pound of cherries relieved the gout in 12 people [Blau]. It is possible that there is a substance in cherries that retards potassium excretion. There is some anecdotal evidence that celery and lettuce will relieve gout. If so, their high potassium content is probably what is involved. One would think that people with kidney failure that causes potassium retention would not have gout, but I know of no evidence for such a correlation.

OTHER FACTORS

Uric acid itself is not a factor in heart disease because uric acid does not correlate with mortality from heart disease when damage to the heart and kidneys is taken into account [Lazzeri]. Orotic acid has been recommended for gout since it decreases uric acid. A dosage of 4,000 mg of Orotic Acid ((Pyrimidinecarboxylic acid, also known as vitamin B13, Animal Galactose Factor, Oro, Orodin, Oropur, Orotinon, Oroturic, Orotyl or whey factor. Vitamin B13 is not really recognized as a vitamin. It is manufactured in the body by intestinal flora and is normally used for a maximum of six days in Gout patients. Orotic acid is not necessarily always good in excess since it is said to bind zinc to a non-biologically active state and can damage the liver, but I would think that the 50 to 100 milligrams that has been recommended for normal supplementation should be safe. Sources of orotate are whey, yogurt, beetroot, carrots, and jerusalem artichoke.

Drinking coffee but not tea has been found to lower uric acid in the serum so this effect is not likely to be from caffeine [Kiyohara] or the potassium.

Conclusions

Potassium bicarbonate dissolved in juice or sprinkled on food is a safe and effective way to ameliorate gout. Other substances that have evidence of ameliorating gout should be safe to use with potassium bicarbonate. They had better be because there is potassium in almost all food. However, until more research is performed, it would be wise not to use them on the same day or at least in the same meal. I am convinced that potassium bicarbonate should be used to cure

gout and chemicals never should be and that this procedure would eliminate gout from our society.

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