

B12 Lozenges

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Let's focus on your senior patients, more specifically, those patients who have been on acid blockers or those who have been chronically ill. A 2023, 18-year Danish cohort study with almost 2 million people shows people on proton pump inhibitors have a significantly greater chance of having dementia in later life. Using a scale called the Incidence Rate Ratio (IRR), PPI users compared with non-users was 1.36. or a relative increase of dementia of 36%. That means the dementia rate among individuals taking PPIs is 1.36 times as high as the rate of individuals with dementia that did not take PPIs. Longer treatment and earlier treatment increase the incidence rate ratio as well. This study was done with PPIs, but all acid blockers have side effects. As we've discussed in other forums, we need HCL for multiple functions.

Consider this study. On a college campus, baseline levels of HCL were taken from “healthy” college students, but before the experimental part of the trial could begin, the flu broke out on campus. This adds a twist to any HCL



experiment as sickness will diminish HCL production. In an effort to salvage their time and data, the researchers decided to see how long it would take for the subjects to return to their baseline levels of HCL after the flu abated. Dr. Devaki Berkson, who shared the study with me, updated my understanding. In the college campus study, most students recovered in a few months. However, it took 2 students 2 years to return to baseline.

This should serve as a reminder for all of us with chronically ill patients who are battling trauma or disease. There's a very good chance that there's a digestive

component as part of the clinical picture.

Besides needing HCL to kill the bacteria on our food and to activate bile and pancreatic enzymes, which are necessary to digest food, optimal levels of HCL will turn on mechanisms to discourage dysbiotic bacteria and support a healthy microbiome. We also need HCL for mineral and B12 absorption. Maybe a major reason for the huge increase in dementia is due to poor digestion and B12 deficiencies. You can see Tuesday Minutes on suggestions for GERD and digestive support to the right.

For anyone who is low in HCL or has been on acid blocking medication for a prolonged period of time, the chances are pretty good that they're low in B12. Patients low in B12 may experience fatigue, irritability, depression, loss of concentration, memory loss, dementia, tingling and numbness in the extremities, loss of vibratory and position sensation, abnormalities of gait, age-related hearing loss, and muscle spasticity.

Doesn't this sound like many of your elderly patients? There are 2 different indicators I look at to evaluate B12/folate status. If the mean corpuscular volume or MCV is above 89.9, that's a good indication there's a deficiency. The other indicator I look at is the mean corpuscular hemoglobin. If the value is above 31.9, it also indicates a B12/folate need. If either one of these indicators is high, suspect a deficiency, but if they are BOTH high, you can be confident of a B12 or folic acid deficiency. Of course, Methylmalonic Acid (MA) is the gold standard for B12 deficiency. If we detect a need for B12 and folic acid via elevated MCV and MCH, there's a strong chance that homocysteine is elevated as well and should be assumed to be high, unless proven otherwise by testing. Fortunately, the remedy for elevated homocysteine, elevated MCV and MCH is the same, namely B12, folic acid, and B6.

My favorite product is a cherry flavored lozenge called B12-2000 Lozenge. Each B12-2000 lozenge contains 2,000 mcg of B12, 800 mcg of

folate (the natural form of folic acid), and 2 mg of B6 as p-5-p.

B12 is not always well absorbed via the stomach with low HCL, so supplementation with an oral form should be considered. There are many forms of B12 lozenges on the market. The problem with oral methylated forms is that they chelate heavy metals that may be used as dental fillings. For this reason, Biotics Research uses a hydroxo-cobalamin form of B12. Research shows that for most people, oral supplementation can be effective, especially if you are already supplementing with HCL.

B12-2000 Lozenges are so tasty that the tendency is to chew them like candy. The key to this therapy, however, is to allow the tablet to dissolve slowly in the mouth. There are some people that may need B12 injections, so following up with laboratory testing is important. Expect to start seeing clinical changes in 30 days, and lab tests should reflect changes in about 90 days. Be sure to remember B12 when treating any elderly patient, those on acid blockers, or anyone who's had a chronic health challenge that may rob them of their HCL capacity.

I love the saying, "In the end, it's not the years in your life that count. It's the life in your years." Enhancing the quality of life for your senior patients is a great gift.