



COULD IT BE B-12? An Epidemic of Misdiagnoses

By Sally M. Pacholok & Jeffrey Stuart

“Epidemic of Misdiagnoses,” the subtitle of this book, sounds like hyperbole. But to some of those who have been misdiagnosed it may, on the contrary, seem tame, especially if psychotic or demented or paralyzed from nerve damage because the lack of vitamin B-12 was not noticed by their doctors. Similarly, wouldn’t a parent whose aloof and silent toddler is labeled autistic – instead of being cured with B-12 injections -- find that subtitle reasonable? So think the authors of this book.

Vitamin B-12 is essential to the human diet because we don’t manufacture it but we need it. B-12 is functionally diverse, playing a significant role in the nervous, cardio-vascular, gastric, immune and mental systems.

Who is at risk for B-12 deficiency? Vegans and those who avoid animal products; people who take pills to suppress stomach acid; people with intestinal or other problems that interfere with B-12 absorption; and people whose dentist has used laughing gas instead of Novocain. There are also some with a genetic anomaly that gives them pernicious anemia, the name of the blood disorder, which results from B-12 deficiency.

The book is organized in chapters so that if you’re elderly you’d focus on chapter 2, if you might have multiple sclerosis, chapter 3, if you have a child with developmental problems, chapter 6, if you’re a physician, chapter 11, and so on. The result of this organization is that there’s quite a bit of overlap for the reader of the whole book. He or she is well rewarded, however, by the very comprehensive and useful appendices and index.

The authors make several key points relating to their claim about misdiagnoses. One is that doctors have been trained to look only at the blood for signs of B-12 deficiency, while thus neglecting other clinical symptoms, which should lead to testing. Such symptoms include dizziness, dementia, neuropathy, osteoporosis, and infertility.

Another key point is that significant symptoms look like those of other illnesses. For example, a diabetic with neuropathy could either have diabetic neuropathy or neuropathy because of B-12 deficiency – in which case the remedy would be different. The apparently autistic child might instead be vitamin B-12 deficient. The dire diagnosis of multiple sclerosis can also be confused with this deficiency as both involve disintegration of the myelin sheath.

In terms of testing, the authors feel that the usual reference ranges are insufficient. For the most usual test, serum B-12, deficiency is usually identified at <200 pg/ml, although

symptomatic patients might be better identified by raising the bar to anything less than 450 pg/ml. Interestingly, folic acid supplements “can mask B-12 deficiency.” To prevent spina bifida and other birth defects, the federal government mandated grain enrichment with folic acid in the late 90’s. Could that be contributing to the failure to recognize this missing vitamin? Other tests are also described, along with the observation that the testing -- compared to either a misdiagnosis or a totally missed diagnosis-- is cheap.

Supplemental B-12 comes in three flavors, so to speak: cyanocobalamin, methylcobalamin, hydroxocobalamin. The authors recommend the latter two, saying that hydroxocobalamin is more available in the U.S. They also recommend shots over pills or lozenges, especially if the need is urgent. The reason is that B-12 is no express train – it makes several necessary stops: in the stomach it requires acidity, pepsin, intrinsic factor, and B-12 receptors; in the duodenum it requires pancreatic proteases; in the ileum it needs calcium; once in the bloodstream, its movement requires a particular protein. So, if B-12 fails at any of these points, it won’t get where we want it. The shots – and maybe the sublingual lozenges – may work better on account of short-circuiting that complex chain of events.

How prevalent is this problem? Estimates quoted in the book range from 3% of the population to a remarkably high 25%. Screening for B-12 deficiency costs very little compared to treating those who fall through the diagnostic net and develop paralysis or dementia or osteoporosis. The case here is well made, comprehensibly told, and clearly footnoted. This useful and eye-opening book is supplemented by a website: <http://b12awareness.org/>

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