

# Editorial

## Niacinamide Helpful in Osteoarthritis: Why did it take Fifty Years to be Re-discovered?

Jonas, Rapoza and Blair<sup>1</sup> reported that niacinamide was helpful in the treatment of osteoarthritis. Seventy two patients were divided by random selection into two groups. One group received the vitamin and other placebo. After twelve weeks they found that the niacinamide subjects improved by 29% and the placebo group worsened by 10%. Pain levels remained the same but on niacinamide patients were able to reduce their anti-inflammatory medication by 13%. This vitamin decreased erythrocyte sedimentation rate, increased joint mobility by 4.5 degrees over the control and side effects were mild. They concluded that niacinamide may have a role in the treatment of osteoarthritis.

This confirmation is very useful but why did it take so long? Dr. W. Kaufmann discovered this in the mid 1940s and by 1949 had published the following two books:(1) *Common Forms of Niacinamide Deficiency Disease: Aniacin Amidosis*. New Haven, Yale University Press, 1943; (2) *The Common Forms of Joint Dysfunction: Its Incidence and Treatment*. E. L. Hildreth and Co, 1949. Kaufmann was a very careful observer and showed clearly the significant therapeutic value of niacinamide. But 1949 was not the right year for such reports, for the wonder drug, cortisone, had just been found to rapidly relieve the symptoms of arthritis. Dr. Hench, who had done the basic work, received a Nobel prize and Merck and Company held the patents. There was a tremendous display of publicity about these wonder drugs and they became the standard for all the arthritides. The fact that cortisones do not help very much was discovered later in England when they were compared with aspirin in the first ever double blind experiments. Aspirin proved equally as effective. Also cortisone and ACTH made many patients psychotic. However the

impression created so many years ago pervaded medicine. Every internist expert in arthritis will know all about the use of prednisone and other drugs but very few will have heard about this interesting vitamin.

I ran across Kaufmann's early work by chance. In a 1957 paper we described the use of vitamin B<sub>3</sub> for treating schizophrenia.<sup>2</sup> There we stated that as far as we knew no one else had used these large doses. A few months later I received a letter from Bill Kaufmann and later he sent me his books. I promptly apologized for missing his prior claim and offered to review his books which I did for the *Canadian Medical Association Journal*. The published review led to an interesting incident. A few months after it appeared, the Dean of Medicine, University of Saskatchewan was confronted by irate doctors from the University of Toronto Medical School who asked him what right did I have, as a mere psychiatrist, to comment on the value of any treatment for arthritis. The Dean was annoyed with me but I simply advised him to mind his own business, that I would publish what I wanted to and not accept censorship from anyone.

I have written before about the terrible waste caused by the innate conservatism of the medical profession. The best recent example is folic acid which prevents spina bifida in infants. When women are given folic acid before they get pregnant or very early in their pregnancy the incidence of this dreadful complication is reduced about 75%. But it took over fifteen years before the profession agreed that the original finding made by a doctor in Scotland had any merit. During these slothful years billions of dollars of costs have been incurred. In the U.S.A. alone 25,000 babies are born each year with this complication. A few pennies worth per month of this very safe vitamin would have saved most of these families and their afflicted children. The cost of being intellectually lazy is great. The profession one day will have to answer to public opinion for its failure to develop

a method by which new discoveries can be examined quickly and without prejudice. The confirmation of the activity of niacinamide was only made possible by the creation in the United States of the Office of Alternative Medicine, National Institute of Health, Washington. This alone will more than justify the small sums allocated by the huge NIH to this, in their opinion, insignificant department.

How many more major therapeutic findings are languishing, unreported, unknown and ignored simply because they have not been patented and have no parents to fight for them?

For many years I have maintained that

medical discoveries take at least forty years—two human generations—before they are generally accepted. In this case it took fifty years. What a terrible waste of human comfort, happiness and health, not to forget costs.

—A.Hoffer, M.D., Ph.D., FRCP(C)

### References

1. Jonas WB, Rapoza CP, Blair WF: The effect of niacinamide on osteoarthritis. *Inflamm Res*, 1996; 45(7): 330-334.
2. Hoffer A, Osmond H, Callbeck MJ, Kahan I: Treatment of schizophrenia with nicotinic acid and nicotinamide. *J Clin Exper Psychopathol*, 1957; 18: 131-158.