

This Article was published originally in P.T. Bulletin May 18th, 1988

Microcurrent Therapy Getting a 'Bad Rap'

By Robert Picker, MD

I wish to respond to the article contributed by Mark C. Biedebach, PhD in the March 2 PT Bulletin. I am writing this letter in part to congratulate and concur with Dr. Biedbach regarding the evidence supporting microcurrent therapy. However, I also wish to object to some of the statements made in that same article.

For the last six years I have been a proponent of of microcurrent electrotherapy (MENS), both with the Electro-Acuscope, and more recently the My-O-Matic. I have treated over 10,000 patients with MENS therapy, and have trained hundreds of practitioners around the country in its usage, giving regular seminars on the topic.

I certainly agree with Dr. Biedebach that there is indeed evidence in the literature regarding the healing effects of microcurrent stimulation, as he laudably cited in his article and bibliography. The results of studies currently in progress by Lynn Wallace, PT, are documenting the impressive clinical results with MENS therapy, and slowly but surely microcurrent therapy is earning a place of recognition and respect among physiotherapy modalities.

Certainly, any electrotherapy modality which is not only proving itself to be effective, as in Mr. Wallace's clinical studies, but also to be more gentle and better tolerated by patients, certainly is worthy of further investigation by any scientifically oriented and humane therapist.

Admittedly, however, microcurrent therapy has been met from some quarters by resistance and skepticism. Undoubtedly this is to be expected when introducing any new modality into the marketplace and perhaps especially MENS therapy because of the tiny micro currents utilized, which are usually sub sensory.

Skepticism is to be expected, and certainly will be addressed by more scientific evidence which is proving what every user already knows. . . micro currents are very effective. Debate is certainly healthy, so long as it opens minds and does not close the down prematurely.

I am compelled, however, to raise strong objection to some of the statements made by Dr. Biedebach, especially those pertaining to the Electro-Acuscope and My-O-Matic, and I cannot in good conscience leave them unchallenged.

Many therapists in this country have had their minds closed to giving serious consideration of microcurrent therapy because of some of the outrageous statements and claims made by some MENS company promoters specifically the Electro-Acuscope. For three years, from 1982-85, I helped introduce the Electro-Acuscope into the medical community.

I did, however, repeatedly raise strong objection to some of the claims made about it, and these claims have once again surfaced in Mark Biedebach's article. Because of the outrageous nature of some of these claims, which strain the belief system of scientifically knowledgeable person, microcurrent therapy is getting an undeserved "bad rap." The Electro-Acuscope company claims to have a computer inside which monitors the electromagnetic frequencies of the tissue being treated and automatically adjusts the frequency and wave form of the output current based on the input data received by the instrument. This is what Dr. Biedebach refers to in his article as "electronic waveform control" and is also called "cybernetic technology" by the Acuscope company.

As a scientist with obvious credentials, I am most surprised and chagrined that Dr. Biedebach is willing to continue to put this type of claim to the physical therapists of this country, which only in turn succeeds in generating well-deserved skepticism about microcurrent therapy, which is certainly most regrettable. In all the years of promoting the Electro-Acuscope, despite asking for it many times, I was never shown a single piece of scientifically verifiable, objective evidence that the Acuscope could make any changes whatsoever in its output current, based on any information being gathered regarding "vibrational frequencies."

Therapists continually ask for such evidence, as well they should, but the Acuscope company continues to obfuscate the issue by making more hyperbole pronouncements regarding the fact that this technology is so advanced that it can't be measured. Presumably, the resonating frequency/waveform control can't be reproduced on an oscilloscope or any other medical measuring device. Can we, as scientific professionals, be expected to accept such nonsense? Based on what evidence? It is time for the Acuscope company to start talking straight scientific talk, devoid of the hocus-pocus nonsense that has given microcurrent therapy its controversial reputation.

Furthermore, there are statements presented as fact in Dr. Biedebach's article which are incorrect and which I must address. Dr. Biedebach's article states that the study done by Carley and Wainapel showed slower results with decubiti than did the study by Barron perhaps because Barron used instrumentation which used "electronic waveform control."

If this implies that the Acuscope was the instrument used in Barron's study, it would perhaps be instructive for Dr. Biedebach to learn that it was actually the My-O-Matic instrument (MONAD Corp., Pomona, CA.) which was used in the study. This company, thankfully, makes no claims regarding "electronic waveform control."

I would also like to point out that the statement made regarding the My-O-Matic instrument having a slower rise time pulse than the Electro-Acuscope is also incorrect, as anyone with an oscilloscope can easily document. In point of fact, the Acuscope's waveform is a fixed 21/2-second-biphasic-squarewave output which is not modified by any input data, but is constant in its envelope waveform. The My-O-Matic can, on the other hand, do either a sharp square wave rise time wave slope, or a softer, more gentle slow rise time for acute cases which might be hyperirritated by the Acuscope's square wave.

If one wants to separate fact from fiction in this confusing picture, I encourage the simple inspection of an oscilloscope print-out to visualize the differences between a fixed square wave and a manually modifiable square wave, which includes both the fast and slow rise time options. If the Acuscope company wishes to prove their case that their instrument can do anything other than a fixed biphasic square wave, I invite them to submit the evidence to a panel of physical therapists selected by the PT Bulletin who can objectively evaluate the claims made by the Acuscope company regarding its "electronic waveform control" cited by Dr. Biedebach, and assess whether there is one grain of proof that the output of the Acuscope is automatically modified in any way by data it collects off the patient's body.

I ask Dr. Biedebach to investigate the claims of the Acuscope company, for which he works as a consultant, to see if he might be successful in persuading the parent company to eliminate the nonsense gobbledegook in its marketing. The future of microcurrent therapy, which is still in its infancy, and for which I certainly share an avid interest, will certainly be enhanced in the process.

To those physical therapists who may have received a questionable impression of microcurrent therapy based on some of these unscientific and outrageous claims, I ask you to please look closer at the evidence being gathered from many quarters, including the data from Lynn Wallace, PT, that point to the dramatic effects of microcurrent electrotherapy. Most importantly, please do your own research and try microcurrent therapy on your most difficult cases to see if this might be a valuable tool in your modality arsenal.

(Dr. Picker is a physician in Walnut Creek, CA)

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