

Nilton Di Chiacchio ¹

Comment on the article "Use of high frequency waves for the treatment of onychomycosis - preliminary report of three cases"

Dear Izelda Maria Carvalho Costa,

I would like to compliment you and all the team of the Brazilian Annals of Dermatology on the effort that you have made in recent years. It has not only resulted in improving the quality of the journal, the re-indexing, but also in its recent quality change (CAPES), going from B3 to B2, which now places it together with renowned international journals. I know that the selection of high-quality articles and the work of your entire team is important to maintain the results of your effort. Therefore, I shall make some comments on the article "Use of high-frequency waves in the treatment of onychomycosis - preliminary report of three cases" published in volume 86, number 3. The article concerns another device that attempts to assist therapy; in this case, onychomycosis therapy. However, the description of the method and analysis of the results left much to be desired, since the following questions were not answered: a) What device was used? b) How was it used? Was it used under the nail plate? Was it used under the proximal nail fold? How long was it used in each session? c) Is there any evidence of therapeutic success of the use of high frequency waves in onychomycosis caused by dermatophytes? The reference cited (7) indicates the effect of high frequency waves only in cultures of *Candida tropicalis* - probably in vitro. d) Is the treatment cost high or not? It is initially mentioned in the article that "its cost may be more affordable than the conventional treatment," but discontinuation of the therapy by 2 of the 3 participants is further justified, since "the patients' availability to innumerable visits to the Podiatry Clinic for application of high-frequency waves and the cost - which would become high due to the long-term application - were some disadvantages of

the therapy." e) As for treatment success, how can we consider that these patients are cured if the direct mycological examination remained positive after 12 months for the 3 patients? We must remember that the criteria for cure are: A) 100% absence of clinical signs of onychomycosis (mycological examination not required) OR B) negative mycological examination with one or more of the following clinical signs i) distal subungual hyperkeratosis or onycholysis in less than 10% of the affected nail ii) thickening of the nail plate that does not improve with treatment due to comorbidities. On the other hand, the criteria for failure are: A) positive mycological examination OR B) any of the following four clinical signs, even if the result of the mycological examination is negative: i) change in the nail plate (> 10%) consistent with dermatophyte infection ii) white / yellow or orange / brown streaks in the nail plate iii) lateral onycholysis with the rest of the plate being normal iv) hyperkeratosis of the lateral side of the nail. f) The photos show that all of the podiatric work probably improved the patients' self-esteem, but did not cure their onychomycosis (direct mycological examination was positive). In view of these considerations, we are left with the impression that this treatment, in addition to being long and expensive, does not result in curing onychomycosis, but that it improves the patients' quality of life when associated with the conventional treatment. Yours sincerely, Nilton Di Chiacchio.

REFERENCES

1. Scher RK, Tavakkol A, Sigurgeirsson B, Hay RJ, Joseph WS, Tosti A, et al. Onychomycosis: diagnosis and definition of cure. *J Am Acad Dermatol.* 2007;56:939-44

Letter sent in 29.6.2011

Approved in 06.07.2011

Institution: Hospital do Servidor Publico Municipal de Sao Paulo (Sao Paulo City-Civil-Servant Hospital)

Financial Support: none

Conflict of interest: none

¹ Ph.D. in Dermatology from FMUSP (Faculty of Medicine of the University of Sao Paulo) - Head of the Dermatology Clinic at HSPM-SP (Sao Paulo City-Civil-Servant Hospital).