



■ Letter

Clinical Implication of Korean Dry Sauna Therapy

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To the editor

I would like to congratulate Choi et al.¹⁾ for their successful study on Korean dry sauna therapy where the health-related quality of life of obese people had improved without any adverse events. The therapy included 15 minutes of dry sauna at 90°C, twice daily for 4 consecutive days. Given our experience of Japanese dry sauna therapy in patients with advanced heart failure,²⁾ I have several concerns regarding their protocol and future perspectives.

In our Japanese prospective randomized control trial,²⁾ we performed Waon therapy with 15 minutes of dry sauna at 60°C, once daily for 10 days. While the frequency of twice daily might be more effective than once daily, it might reduce the participants' adherence. An explanation of the implications of a twice-daily protocol would be helpful. The sauna temperatures were also different between the two studies (90°C versus 60°C).^{1,2)} It would be interesting to compare the outcomes stratified by temperature settings.

The therapeutic effects on the hemodynamics and autonomic nervous systems would be evident immediately,³⁾ but it might be weeks or months until the metabolic benefits can be enjoyed. Long durations of dry sauna therapy may be required to assess its implications for obesity-related metabolic diseases.

Finally, as the authors stated in the limitations section,¹⁾ ob-

jective parameters might be useful for quantifying the impact of dry sauna therapy on the quality of life, including blood catecholamine levels and heart rate variability.³⁾

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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REFERENCES

1. Choi HS, Kwon H, Cho KH, Thuc LC, Park SY, Kim NH, et al. Repeated dry sauna therapy improves quality of life in obese Korean people. *Korean J Fam Med* 2020;41:312-7.
2. Tei C, Imamura T, Kinugawa K, Inoue T, Masuyama T, Inoue H, et al. Waon therapy for managing chronic heart failure: results from a multicenter prospective randomized WAON-CHF study. *Circ J* 2016;80:827-34.
3. Imamura T, Kinugawa K, Nitta D, Komuro I. Real-time assessment of autonomic nerve activity during adaptive servo-ventilation support or Waon therapy. *Int Heart J* 2016;57:511-4.

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