2021 Halotherapy Pilot Study with the HaloPocket

Effect of Halotherapy on Peak Expiratory Flow (PEF) and Forced Expiratory Volume in 1-second (FEV1) in recreational athletes above the age of 40 with Halotherapy Solutions HaloPocket

Abstract

Objectives: The purpose of this study is to evaluate the effect of Halotherapy on Peak Expiratory Flow (PEF) and Forced Expiratory Volume in 1-second (FEV1) in recreational athletes above the age of 40 using the HaloPocket

Study design: This was a pilot open-label before-and-after-study.

Setting and Participants: The study was performed in Okemos, MI Participants were recreational athletes over 40 years of age, and were enrolled in the study between December and March 2021. Participates included in the study exercise at least 3 days a week, are non smokers and have not used halotherapy in the past year.

Materials and methods: Composite endpoints include: FEV1 and PEF and were measured using a spirometer at inclusion and termination of study. Participants received 2 three minute sessions of halotherapy each day (dry aerosols of salt less than 5 μm), with the Halotherapy Solutions HaloPocket completed five days a week over a 6-week period.

Results: In this study FEV1 did not significantly increase in any of the study participants. There was no drop out in this study.

Conclusion: Halotherapy sessions using the HaloPocked is not associated with improvement in FEV1

Purpose

The purpose of this study is to determine the effects of Halotherapy using the HaloPocket on PEF and FEV1 in non smoking recreational athletes above the age of 40. We hypothesized that, participants who are recreational athletes will see an improvement in FEV1, FEV and quality of life parameters. Hence the specific aims of this pilot study were to investigate the possible effect of halotherapy on lung function, as measured by spirometry as well as compare the results of this pilot study to that done with a commercial halogenerator.

Materials and Methods

Composite endpoints include: FEV1 and PEF and were measured using a spiromoter at inclusion and termination of study. Participants received 2 three minute sessions of halotherapy each day (dry aerosols of salt less than 5 µm), with the Halotherapy Solutions HaloPocket completed five days a week over a 6-week period.

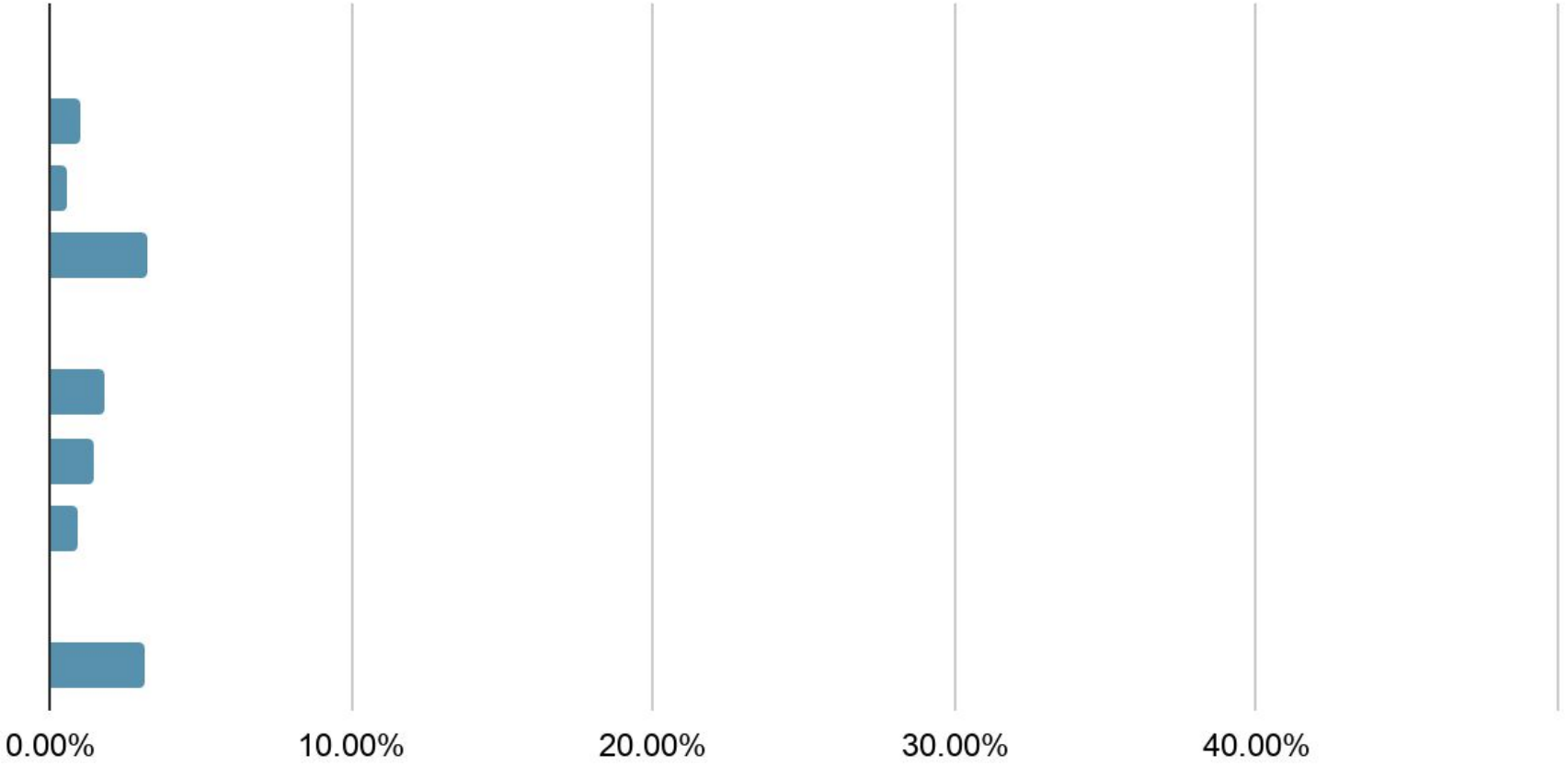
Results

Between December2020 and March 2021, ten participants completed the study protocol, including all required sessions of HT. Every participant completed informed consent, HIPAA consent and Quality of Life and Study Questionnaire.

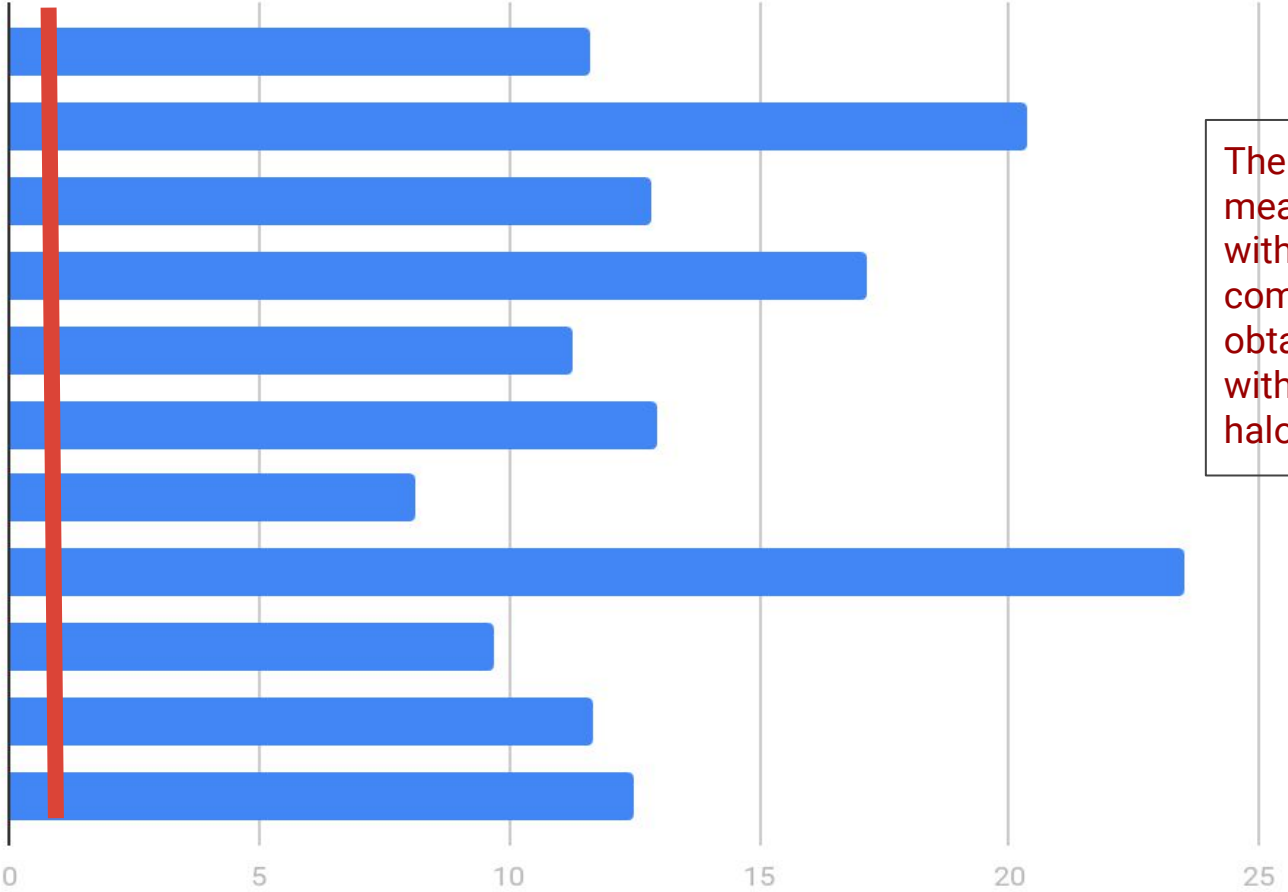
Quality of Life Questionnaire parameters were unchanged.

The duration of follow up was 6 weeks. FEV1 and PEF were measured at study start and completion. The composite endpoints were FEV1 and PEF.

Effect on FEV1 following 60 sessions of Halotherapy with the HaloPocket



Effect on FEV1 following 12 sessions of Halotherapy with a Commercial Halogenerator



The red vertical line is the mean % increase in FEV1 with the HaloPocket when comparing the data obtained in a pilot study with a commercial halogenerator.

Discussion

This study had some limitations as it was an open-label study. We could not evaluate whether the lack of improvement in the quality of life questionnaire was due to subjective effects.

In conclusion, this pilot study has demonstrated that Halotherapy with the HaloPocket has no benefit to FEV1 improvement (0.85% mean improvement). When comparing to the same pilot study using a commercial halogenerator (14% mean improvement) we determined that the commercial halogenerator is more beneficial as far as improved lung function is concerned.

In both study situations, longer studies using a randomized controlled study design are necessary to better evaluate the effects of Halotherapy on improvement of FEV1.