**Seeking a sustainable and effective vibration therapy condition for chronic leg edema in chair-bound older adults**

Background

In some older adults, chronic leg edema cannot be controlled by standard care such as leg elevation or compression. Although compression is a common standard care method for edema, this method is not recommended for patients with arterial blood flow insufficiency. Skin injury may also occur if compression stockings are inappropriately worn. Many older adults feel uncomfortable and have difficulty wearing compression stockings, meaning this method may be of limited application in this group.

This study focuses on vibration therapy as a care method for chronic edema in older adults. A previous study reported vibration could control chronic leg edema in chair-bound older adults; however, the intervention method in that study was labor intensive. Development of an easy and sustainable care method for chronic leg edema in older adults is required for use in clinical settings. Furthermore, the previous study only performed one vibration condition, and some older adults’ edema could not be controlled by vibration therapy under that condition.

Objectives

1. To develop a sustainable care method for chronic leg edema in older adults.
2. To clarify the most effective vibration condition for reducing chronic leg edema among chair-bound older adults.