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OIL-BASED LYMPHATIC MASSAGE IN SPACE: TECHNIQUES AND CHALLENGES IN MICROGRAVITY ENVIRONMENTS

Abstract

As human space exploration advances, maintaining health in microgravity environments has become a critical concern. Among the various aspects of space wellness, oil-based lymphatic massage, which promotes circulation, enhances immune function, and provides relaxation, has garnered attention. However, microgravity presents unique challenges that make the application of traditional massage techniques difficult, especially due to altered bodily fluid behavior in space. This lecture will explore methods for conducting oil-based lymphatic massage in space and address the associated challenges. In particular, the application of techniques such as acupressure, proper weight distribution, and maintaining the recipient's body posture in microgravity will be highlighted as key challenges. On Earth, maintaining body stability is supported by a fixed surface or gravity, but in microgravity, new approaches are required to stabilize the body during massage. The stability of the massage bed is also a significant concern, as it must be specially designed to ensure proper support in weightless conditions. Additionally, the use of towels and other equipment must be reimagined for space conditions, where fluid management and body posture need to be supported while maintaining comfort and relaxation. To address these issues, it is essential to design not only the oil and massage techniques themselves but also the overall environment in which the treatment occurs. Methods for properly applying pressure, stabilizing the body posture in microgravity, and developing new tools and devices for support are critical. Furthermore, innovative solutions for adjusting the pressure and maximizing relaxation while ensuring the comfort of the recipient must be explored. Through this research, we aim to provide new methods for maintaining the health of astronauts and future space travelers, contributing to their well-being on long-term space missions. The findings of this study will offer practical guidance for supporting physical and psychological health during extended stays in space.