



Lymphoscintigraphic assessment: Fundamental and clinical research in the interest of physiotherapy for the treatment of lymphoedema

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PUBLIC PHD DEFENCE FOR THE DEGREE OF
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ABSTRACT OF THE RESEARCH

Lymphoedema is a condition where there is an accumulation of interstitial fluid in the extracellular space due to lymphatic insufficiency, resulting in increased volume of the affected area. This condition can have a significant impact on the patient's quality of life. Physiotherapists can use Complete Decongestive Therapy (CDT), a treatment protocol that includes both therapeutic and preventive techniques, to improve drainage of the oedematous area. One important technique of CDT is Manual Lymphatic Drainage (MLD), which can maintain or improve physiological drainage that may be disrupted for various reasons. MLD involves slow and repeated massage manoeuvres that can decrease the oedema volume, stimulate the lymphatic system, increase resorption phenomenon and facilitate movement of the oedema from a poorly drained area to a better drained area. From a lymphoscintigraphic perspective, MLD can increase lymphatic flow in the lymphatic system, decrease the charge in the areas of dermal backflows (DBF), and increase the number of opened lymphatic pathways.

However, recent reviews of the literature suggest that MLD's effectiveness alone is not proven and requires further studies. Some lymphoedemas exhibit specific pathophysiology, such as paradoxical lymphoedemas, where classical physical treatment may not be effective. This thesis argues that physiotherapy for lymphoedema needs to be tailored to the patient's anatomy and physiology. Pathophysiological lymphatic drainage of the patient should be integrated into therapeutic management, with the lymphoscintigraphy providing valuable information to adapt treatment. A lymphoscintigraphy-guided MLD can increase MLD effectiveness by 19%.

Although lymphoedema is a complex disease, the research shows that every lymphatic drainage, collateral lymphatic pathway, and newly opened lymphatic pathway can play an important role in physical therapy management. While these results do not make MLD a perfect tool for physical treatment of lymphoedema, they highlight the importance of lymphoscintigraphy as an effective tool to provide valuable information and help physical therapists improve therapeutic management while adapting it to their patients.

CURRICULUM VITAE

Having a passion for physiotherapy and caring for patients, I was able to learn how to treat various pathologies during my studies in physiotherapy and motor science at the Haute Ecole Bruxelles-Brabant ISEK, before discovering my specialization in lymphology. Subsequently, I had the opportunity to start my career at the Jules Bordet Institute, where I received training in lymphology, edema treatment, and post-oncological physical therapy for a period of four years. Since 2019, I have been working as an independent physiotherapist specializing in lymphology and edema treatment. As a doctoral student, I was privileged to work on numerous studies with many experts I admire, who helped guide me to where I am today.

