

LYMPHSCINTIGRAPHIC EVALUATION OF MANUAL LYMPHATIC DRAINAGE FOR LOWER EXTREMITY LYMPHEDEMA

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ABSTRACT

To evaluate the effect of manual lymphatic drainage on technetium-99m-labeled dextran ($^{99m}\text{TcDx}$) transport, 16 patients with lymphedema of lower extremities underwent two lymphoscintigraphy exams by injecting $^{99m}\text{TcDx}$ intradermally into the first interdigital space of the affected extremity. The first was a control examination at rest followed by an examination which included a manual lymphatic drainage session after the injection of the $^{99m}\text{TcDx}$. Images were obtained 45 minutes and three hours after the injection of the radioisotope. Extremity volumes were also measured before and after the drainage session. The findings from the examinations were assessed in a quantitative, semiquantitative and qualitative manner and compared without and with drainage. The analyses of the extremities' circumference before and after the drainage by paired t-test revealed a significant decrease. The analyses of the quantitative, semi-quantitative and qualitative evaluations evidenced no significant difference, without or with drainage, within the 45-minute and three-hour periods. Thus, manual lymphatic drainage caused an effective reduction in the circumference of the extremities but did not have a significant effect in the transport of $^{99m}\text{TcDx}$.