

**THE ENDERMOLOGIE® LPG SYSTEM:
A NEW WEAPON IN THE TREATMENT OF LYMPHEDEMA
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One of the main features of lymphedema is protein retention in the interstitium leading to water and bacteria retention and finally to progressive fibrosis that affects tissue nutrition. Fibrosis is exacerbated by macrophage and fibroblasts secretion of mediators. A vicious circle is then established that aggravates the edema, with also local vasoconstriction, lymphangitis spasm and lymphatic thrombosis. This leads to the most serious picture of fibrolymphedema and elephantiasis. It is now widely demonstrated that endermologie® induces a direct stimulation of connective tissue and fibroblasts activity, as well as an improvement of arterio-venous and lymphatic flow. Starting from these observations it was decided to insert endermologie® in the therapeutic protocols of treatment of lymphedema grade III and IV. It means lymphedema no longer reversible in lying position, where the alteration of the tissues and the proliferation of adipose tissue has already produced repercussions on the skin and subcutaneous tissue leading to the deformation of the limb. For years we have been providing patients periodic therapeutic cycles of 15 consecutive sessions as follows: 30 minutes of manual lymphatic drainage, 30 minutes of pressure therapy and elastic bandages removed before sessions and fixed during the weekend. We replaced manual lymphatic drainage with endermologie® two or three sessions per week for a total of 15.

We have tested this protocol on 10 patients, including 5 with post-mastectomy arm lymphedema and 5 with post-surgical lymphedema of a lower limb. All were frequent visitors to our clinic and all were already satisfied with the results obtained with the previous therapy. The endermologie® was performed for 35 minutes before the pressure therapy and always decomposed in two phases: 25 minutes in the mode already prepared for the treatment of fibrosis followed by 10 minutes in the intermittent mode for drainage. The bandage was always performed as usual. As always, we have obtained a reduction in the size of the edema and a reduction in the circumference of the limbs as we observed with manual lymphatic drainage. But we have achieved much more on the reduction of fibrosis, on the remodeling of the limb. In particular, we noticed a marked improvement in the joint flexor capacity due to the reduction of the retropliteal and elbow fibrotic masses. In addition patient reported significant decrease in symptoms (heaviness, pain, functional recovery). Three months after the first course of treatment, the edema partially reformed (as usual), while fibrosis did not undergo any deterioration. Although it is little and soon for definitive affirmations, we can certainly say that endermologie® presents itself as a valid alternative to manual lymphatic drainage and that, compared to this, has the advantage of acting also and above all on fibrosis and functional recovery of edematous limb.