

THE PHYSICAL TREATMENT OF POST-THERAPEUTIC UPPER LIMB LYMPHOEDEMA AND ITS LONG-TERM FOLLOW-UP CARE

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The treatment of an Upper Limb Oedema (ULO) after breast cancer treatment is now controlled by physical therapy, combined with or without specific medical treatment.

However, the treatment should always be carried out under medical supervision, whether the oedema is in an early or late stage of development. Indeed, the appearance of an oedema should prompt one to think of a resumption of the cancerous process and thus a decision concerning the treatment must be taken in conjunction with the cancerologist.

Our experience of almost 500 cases since 1975 leads us to state a certain number of points relevant to the application of physical therapy, the therapy modalities and the way in which the treatment is conducted.

Assessment - Examination before treatment

The main points to note are as follows :

- age and occupation ;
- the presence of excess weight as an aggravating factor ;
- effect on the main limb, difficulties experienced ;
- notable history which could hinder treatment (arthrosis, shoulder peri-arthritis ...) ;
- clinical classification of the breast tumour (TNM) ;
- after-effects of surgical and radiotherapeutic treatments (fibrosis, telangiectasia, heavy scars, plexite, stiffness ...) ;
- date and modalities of carcinologic treatments (sequence and surgery type, with the extent of ganglionic removal, immediate post-surgical occurrences, irradiation doses ...) ;
- date and circumstances of the appearance of the oedema (frequency of lymphangitis ...)

- position of the oedema, its consistency (flexible, wrinkling or fibrous) and comparative peripheral measurements on the contralateral side, allowing a classification by volume of the ULO and observation of the treatment evolution ;
- further examinations: lymphography, doppler echography, shoulder X-ray ...) ;
- palpation of the arm-pit and thorax to ascertain the degree of fibrosis ;
- the possibility of a specific medical treatment associated with a physical treatment (anti-inflammatory, antibiotic, veinotropic ...), of a previous physical treatment, with its results and its modalities.

Physical treatment

1. Methods

a. Without temporary retention

- manual lymph drainage (MLD) (1) alone or;
- pneumatic lymph drainage (PLD) (2) associated with the MLD on a machine using "pressure gradient" technology, very useful for absorbing or transferring the liquid area of oedemas of more than 2 cm.

b. With temporary retention

- MLD alone or associated with;
- PLD;
- temporary retention by bandages between sessions.

c. With elastic retention by a made-to-measure arm-band

which seems essential to us where significant oedemas "with a high degree of filtration" are concerned, and whose design requires a knowledge of the specifications of the existing products on the market, together with the complete cooperation of the prosthetist.

2. Operating techniques

- hospitalised, an ideal choice where the care can be carried out several times daily ;
- as an "out-patient", where one should take note of the patient's occupation when preparing the temporary bandage.

3. Indications

One can distinguish between early and late developing oedemas of the upper limb (whose appearance is more than one year after the carcinologic treatment).

Sub-groups can be established with respect to the volume criteria of the oedema, to its position in relation to the upper limb (hand, fore-arm, arm), to the surgical treatment and radiotherapy (surgery type, extent of ganglionic removal, and radiation doses ...), and to the peripheral measurements allowing one to identify :

- "small oedemas" (less than 2 cm.);
- "significant" oedemas (more than 2 cm.);
- "big arms" (more than 4 cm.).

Treatment of "small oedemas" should respond to the MLD alone. The question arises as to the interest of added retention with an arm-band, when active. This problem should be resolved following later consultation with the patient.

Treatment of "significant oedemas" requires prolonged treatment of the belts with MLD, combined with low pressure PLD, of 30 to 80 mm Hg pressure-gauge readings, and the essential temporary retention "as required" at the end of sessions, with medium-strength elastic bands.

Treatment of "Big Arms" can justify a long term MLD treatment, with PLD at higher pressures, and temporary retention bandages worn between sessions, with multi-layered, low-strength elastic bands (imperative hospitalisation).

4. Length of Treatment

The aim of the physical treatment is to have an effect on the "deficient" lymphatic function, and the recorded decrease in volume of the upper limb. The second criterion is evidently the easiest with which to comply.

Once the oedema has decreased, an elastic retention made-to-measure arm-band can be used. On average, if the treatment is for an "out-patient", about 15 sessions should be envisaged in the case of a "significant" ULO.

Short and long term follow up care

On delivery of the retention arm-band the patient should be kept under regular observation.

For "small ULOs" where the wearing of an arm-band can be justified during daily activity, and whose measurements and the flexibility of cutaneous tissues are stable, we recommend two series of 10 sessions of MLD treatment per annum.

For "*stable Significant and Big Arm ULOs*" where the wearing of an arm-band seems essential to us (worn throughout the whole day), we suggest a progressive withdrawal of the physical treatment with a regular monthly treatment combining MLD and PLD.

For unstable ULOs, more frequent follow-up care is necessary of perhaps one session every fortnight (a new cancerological assessment should be envisaged).

Replacement of elastic retention should be anticipated, as it is essential for the maintenance of progress. A new series comprising the basic treatment can then be prescribed if one thinks further volume can be gained by fitting an arm-band adjusted to the new measurements.

In the case of obstinate ULOs with a high degree of filtration, we suggest that the patients obtain a pressure gradient (3) individual pneumatic reducer (IPR) for further treatment in the home, which frequently allows a quicker withdrawal of the retention. Sessions of MLD can be combined with this treatment.

Permanent withdrawal of the retention arm-band is a difficult problem as there are few criteria which allow one to determine an exact date.

The extended surveillance of the patients is of utmost importance as this alone allows one to see the evolution of the oedema and the stability obtained.

Moreover, one cannot emphasize enough the importance of the health rules in the life of a lymphoedemic patient (not to injure oneself, avoid effort...). A resurgence of lymphangitis can at any moment mean a return to basic treatment.

In order to reduce the demands of treatment sessions and their cost, we favour the patient obtaining an IPR and "autodrainage" training for herself or her relatives.

References

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