

Lymphovenous News

ASK THE EXPERTS

Our panel of experts answer the following questions asked at the Annual Lymphedema Conference held last fall in Toronto at Sunnybrook Health Sciences Centre. .

If the lymphedema affected arm is down to normal size, is it still necessary to continue wearing a compression garment?

ROBERT HARRIS - Once a limb has reduced to normal size, patients may often feel that the lymphedema has disappeared. However the potential to refill is always there due to the problems with the lymph vessel system and the lymphedema is in a "latent" phase. A compression garment helps to maintain the results of therapy and even though a limb may have reduced to normal size, there may be times when wearing a garment is appropriate. For example, if strenuous exercise is undertaken, when travelling long distances (over a few hours) and airplane travel. Patients have frequently reported that their lymphedema worsened or was triggered by flying. In general though, if the limb is maintaining at a normal size and symptoms such as bursting sensations or heaviness are not experienced, a garment may not be necessary to wear. If symptoms do reappear please see your therapist or physician and wear your garment.



What is fibrosis? Can you undue fibrosis? What is the cause/process that causes creation and build-up of fibres in a protein rich environment and what could mediate build-up?

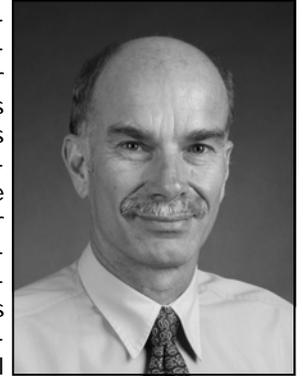
ROBERT HARRIS - One of the blood proteins, fibrinogen, leaves the blood capillaries and normally would be taken up by the lymph vessels if they are working correctly. However, in patients with damaged or absent lymph vessels the fibrinogen cannot be removed from the tissues and therefore accumulates. The fibrinogen is transformed into fibrin, protein fibres that eventually cause a hardening (induration or sclerosis) and this is known as fibrosclerosis. A similar process occurs in wound healing and acute inflammation.

In patients with lymphedema, usually the stimulation to form fibres is the lack of ability in the lymph vessel system to remove proteins from the tissue and consequent accumulation of protein. In regions of constriction of the lymph system such as the wrist, elbow, ankle and knee, fibrosis can often develop distal (below) the joint. Another stimulus to form fibres are at pressure points such as the back of the legs when sitting for long periods or ulnar (little finger) side of the arm when resting on a desk, typing etc. If patients have been receiving pneumatic compression therapy (pumps) for long periods of time without Manual Lymph Drainage and removal of ac-

cumulated protein-rich fluid, fibrosis can tend to form at the proximal (top) end of the limb.

What is your experience with laser therapy for lymphedema?

NEIL PILLER - We have conducted a number of clinical trials in Australia of both scanning (he/ne-gas) and hand held laser, the latter of which was a double blind cross over trial of the unit. These trials have been published in the international literature. In our state over 10,000 treatments of laser for lymphoedema have been undertaken. In all cases laser outcomes are better if the patient has some form of fibrotic induration either due to the surgical scarring, radiotherapeutical scarring or due to the fibrotic induration associated with the progression of the lymphoedema. As one knows scarring or fibrosis can reduce the transport capacity of the lymphatics due to their entrapment. Loosening or changing the surrounding fibrous structures (which is one of the possible actions of laser) allows them to beat more effectively and carry again a greater load of lymph. It is interesting in experimental studies that when the lymphatics are functioning normally that the laser has no effect on them but only when they are slow or of poor functionality. So laser (like most other treatments) is not for everyone and it is not a miracle - one must have an assessment to see if they will benefit.



Is there a difference between the edema secondary to surgery and the edema from metastatic disease? What should a therapist look for to indicate metastatic disease?

NEIL PILLER - I'm not sure what this question means. Tumors can block the lymphatics internally (when the tumor is in the nodes) or can block due to the impact of a tumor surrounding the lymphatics and then fluids may accumulate due to poor lymph drainage. However generally (but not always) if the oedema is due to a tumor the swelling most often starts more distally than when the swelling is due to surgery or radiotherapy. It's not my area but one can also sample bloods to look for factors which would indicate the presence of a tumor (tnf alpha etc) and or by using ultrasound etc.

What are your thoughts on compressing a breast during mammography when edema is present after a lumpectomy and radiation? Does this increase risk for long term lymphedema?

NEIL PILLER - It's an area in which we need more research - there is no evidence either way but a few anecdotal reports of the oedema being worsened and as well a few of it getting better (opening up new lymph drainage paths presumably)!