

Are we there yet?

Neil Piller

We are all aware that there is nothing simple about lymphoedema; its aetiology, comorbidities, identification, conservative and surgical treatments, patient and carer management, and the way in which we all need to team up to get the best outcomes.

The increasing information deluge can make it hard for many of us to decide on what is actually going on, what to do, when and in what sequence. Despite being well trained and informed, making the right decision is tough. But making the wrong one can mean a poor or suboptimal outcome.

For our frontline therapists and clinicians, there are a range of training courses and update options around the world (too many to mention here without possibly missing one of them), giving certification from their respective bodies and the confidence and capability to practice.

However, we are often faced with complex cases, with many confounders, with a poor or undocumented history and/or with the patient presenting in an advanced stage of lymphatic disruption/failure.

We have given you a feeling of that complexity in prior issues of our journal, most recently the excellent patient perspective of Bareham and Speirs that I shared in my editorial last year (Piller, 2020) entitled “What about us?” and you will see in this issue a response to this from O’Brien (2021) about the issues and highs and lows of progressing through the cancer diagnosis and treatment pathway, including the fears and trepidations and the surprising highs along it.

But what do you do and where do you seek specific information from and from whom when you are confronted with these

cases? The answer to this, of course, is reputable websites, peer-reviewed studies and systematic reviews, along with being a team member and, together, being able to deliver integrated care, targeting and sequencing treatments.

Its possible that in the future, with earlier, objective and accurate detection of lymphoedemas and improved surgery, targeted radiotherapy and other innovations to minimise damage to our lymphatics, as well as an increasing awareness of the impact of our genetics on their functionality, we may not see such late-stage complex cases. However, as you will see in this issue in the articles from Witt, despite this, we are facing another significant issue over which we have little control — climate change and its impact on chronic oedema and lymphoedema, as well as its risks and effectiveness of their management.

It’s tough getting everything correct. We all do our best but at times our, and the international updated knowledge base and guidelines, and consensus, can really help but still often only in a general way. We can be left feeling frustrated and powerless, and the patient left thinking about who else they should have seen instead of, or in addition to, you.

As many of our conferences under the auspices of the International Lymphoedema Framework and the International Society of Lymphology, British Lymphology Society, National Lymphedema Network, Lymphatic Education & Research Network and the Australasian Lymphology Association and other national bodies around the world are showing. We are moving forward knowledge-wise and, thus, in our confidence to better treat our patients as individuals. Our training programmes are integrating our new knowledge and our teams are expanding. The question “Are we there Yet?” (a line

from a TV commercial in Australia) results in the collective answer “No, but we are getting there.” We are gaining confidence all the time through increased knowledge, improved objectivity and coordinated team management.

I have picked a few articles from the recent literature to give you some examples of us “getting there” and what we need to do to achieve it. Firstly, the patient, clinicians and therapists (in fact the whole team) need to know more about lymphatic dysfunction with a genetic origin and its wide-ranging impact. This means having a full genetic history and understanding of what it means. Lymphatic gene dysfunction can affect immune function, leading to enhanced infection risk; it can influence cancer development and spread; and it may even influence fat transport, thus impacting on nutrition and obesity (Martin-Almedina et al, 2021).

Secondly, we need to acknowledge that elevated preoperative body mass index, radiation, axillary dissection and neoadjuvant medical therapy are associated with an increased risk of lymphoedema after breast conserving surgery, but it seems oncoplastic reconstruction is not a risk factor for lymphoedema. Maybe the latter surgery, which rebuilds the breast after breast cancer surgery with the aim of reducing scarring and preserving as much of the existing breast tissue as possible, is the way to go (Gowda et al, 2020).

In terms of the well-documented risk factor of BMI at lymphoedema diagnosis and its link to lymphoedema, it indicates to us the importance of, and the need for, educational care, promoting personalised nutritional lifestyle and encouraging physical activity early in the management of breast cancer (Leray et al, 2020) and the gain from integrated health management.

The effect of other comorbidities

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associated with lymphoedema remains elusive. Morfoisse et al (2021) suggest more information and direction is needed regarding oestrogen receptor antagonists or aromatase inhibitors. Further, they indicate, the role of sex hormones and gender has been poorly investigated in the aetiology of the pathology of lymphoedema. We just don't know or are unsure what might be happening in the patient in front of us.

Also increasingly important are investigations that have found a growing list of pathological conditions in which morphological or functional lymphatic changes can be identified. Among them are atherosclerosis and dyslipidaemia, hypertension (and other cardiovascular diseases), inflammation and inflammatory bowel disease, glaucoma and neurodegenerative disease. Rockson (2021) also emphasised that the disparate nature of these suggests that the presence (or absence) of the resulting structural/functional lymphatic changes could have a previously unrecognised influence in the maintenance of the patient's health and the promotion/exacerbation of those diseases, and of the lymphoedema.

But what of the measurements we make?

What about the objective details of the lymphoedema and of its early detection? We know this is of critical importance as early treatment gives better outcomes. We are all aware that bio-impedance is a potential tool with demonstrated benefits

for early diagnosis of Lymphoedema and that it can provide an economic benefit in terms of the cost of lymphoedema treatment and great alternative for early diagnosis of (Forte et al, 2021), but it can have its limitations. Keeley (2021) showed limb volume measurements performed better than bio-impedance spectroscopy in the early detection of BCRL and emphasised that pre- and postoperative monitoring of limb volume measurements is useful in the early prediction/detection of those likely to develop breast cancer-related lymphoedema and allow early intervention.

Does it matter then how we do it? As long as it's done. We also must not forget about other early detection strategies, such as tissue dielectric constants, more about these in our next editorial.

Taken together, this and other information, particularly the introduction of ICG lymphography and its use in guiding personalised conservative management plans, can be translated into clinical practice and can help us change our research and educational priorities and training programmes (Koelmeyer et al, 2021)

It's clear that we not only have to embrace and apply our new knowledge and incorporate this into our training programmes, but we must also work as a team and integrate our treatment and care programmes and provide education for those in at risk patient groups, as well as for those with lymphoedema. As we are a relatively tight-knit multidisciplinary community already its well within all our means. For the patients, it's knowledge,

empowerment and ability to better self-manage, and our patient groups around the world are making sure this is promoted and supported (Board, 2020).

Are we there yet? Well, no, but we are well along the road towards a better outcome for all. Let's listen, learn and apply it all in a multidisciplinary sense as a team and in concert with our patients' needs.

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