

# SELECTED ABSTRACTS FROM THE BLS ANNUAL CONFERENCE 2008

The British Lymphology Society Research Advisory Board (BLS RAB) is pleased that the *Journal of Lymphoedema* has agreed to publish the following selected abstracts from last year's conference in Belfast. We would like to encourage members and other healthcare professionals to submit abstracts for this year's conference to be held in Sheffield. Details of the submission process and deadlines are included on page 88. *Vaughan Keeley, Chair of BLS RAB*

## Lymphoedema risk management awareness and adherence among women with breast cancer

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Current guidelines designed to minimise lymphoedema risk among women with breast cancer recommend lifetime practice of arm and hand care strategies and ongoing monitoring for lymphoedema symptoms. Prior research suggests low utilisation of these recommendations, yet little is known of factors underlying these low rates.

### Aims of study

Using a prospective design this study among women recently diagnosed with breast cancer aims to assess:

1. Lymphoedema awareness
2. Sources of information used
3. Levels of adherence
4. The role of awareness and information source on uptake of recommendations.

### Methods

Women (N=106), recently diagnosed with breast cancer and due to undergo lymph node surgery were recruited and consented into the Human Ethics approved study. Assessments were carried out within one week of surgery (baseline) and three months later (follow-up). Demographics, lymphoedema awareness, sources of lymphoedema information accessed and utilisation of recommendations were assessed. Using SPSS, bivariate analyses were conducted (correlation, chi-square), then 2-sample t-tests and ANOVAs.

### Results

Lymphoedema awareness increased from

baseline (M=16.7) to follow-up (M=17.9;  $p=0.016$ ); women undergoing axillary clearance (objectively higher risk) had lower awareness (M=17.4) than women with sentinel node biopsy procedures (M=18.2;  $p=0.046$ ). Most commonly used sources of information were a brochure and clinic staff; the amount of information sources accessed increased over time. 13% of women had received no lymphoedema information by follow-up. Adherence to recommendations at follow-up was relatively high (M=9.53/12), but at least one-third of the women were not adhering to three of the recommendations. Lymphoedema awareness ( $r=0.50$ ,  $p=0.0001$ ) and accessing information from the brochure ( $p=0.005$ ) and clinic staff ( $p=0.018$ ) were associated with increased rates of adherence.

### Conclusions

Providing women with information about lymphoedema risk management increases both levels of awareness and utilisation of the recommended actions. Provision of information in brochure format with additional information from clinic staff appears to be most beneficial to encourage adherence. That women with higher actual lymphoedema risk had lower levels of awareness at follow-up suggests that these women are not heeding the message provided, or may be in denial. In general, adherence to recommendations was high but the lack of adherence to actions that require ongoing and frequent application is concerning.

## Surgery in the management of lymphoedema — is it time to re-explore an alternative pathway?

Mr Alex Munnoch, Consultant Plastic Surgeon, Ninewells Hospital, Dundee, Scotland

Before the development of suitable compression garments and decongestive therapy techniques, surgery was the main treatment option for patients with lymphoedema. Many techniques were attempted throughout the twentieth century, some simply to debulk the limb, frequently causing significant morbidity, and some attempting to improve the lymphatic drainage. Reported results were variable. There are, however, a few international experts who have demonstrated significantly successful outcomes using several different techniques. The purpose of this presentation is to review the current literature and presentations from recent international conferences on the present evidence with regard to surgical intervention for lymphoedema.

Surgical excision is still an option for some individuals, particularly with genital lymphoedema, where improved physical appearance, ambulation, hygiene, micturition and sexual function have been reported by Modolin.

Debulking procedures are still used occasionally, but liposuction has clearly been demonstrated to produce a better result functionally and cosmetically. Brorson has now reported maintained reduction of 100% or greater with follow-ups now reaching 14 years. This has been effective for both arm and leg lymphoedema with significant improvement in limb function and psychological well-being reported. Skin blood flow has also improved and the incidence of cellulitis reduced. This is not correcting the lymphatic failure and patients are required to wear compression garments indefinitely.

Campisi has refined the technique of lymphaticovenous microanastomoses and

has reported excellent long-term results, particularly for stages I and II. He has now treated over 1500 patients over a 30-year period, with over 75% volume reduction reported in 83% of patients followed for over 10 years.

Baumeister, on the other hand, described lymphatic interpositional grafting and lymphatic transfer; and has also demonstrated impressive outcomes over ten years. He has shown a reduction in limb volume with sustained lymphatic drainage as demonstrated by lymphoscintigraphy.

#### Suggested reading

Baumeister RG, Siuda S (1990) Treatment of lymphedemas by microsurgical lymphatic grafting: what is proved? *Plast Reconstr Surg* 85(1): 64

Becker C, Assouad J, Riquet M, Hidden G (2006) Postmastectomy lymphedema. Long-term results following microsurgical lymph node transplantation. *Ann Surg* 243(3): 313–5

Brorson H (2000) Liposuction gives complete reduction of chronic large arm lymphedema after breast cancer. *Acta Oncol* 39(3): 407–20

Brorson H, Ohlin K, Olsson G, Langstrom G, Wiklund I, Svensson H (2006) Quality of life following liposuction and conservative treatment of arm lymphedema. *Lymphology* 39(1): 8–25

Campisi C, Boccardo F, Zilli A, Maccio A, Napoli F (2001) Long-term results after lymphatic-venous anastomoses for the treatment of obstructive lymphedema. *Microsurgery* 21(4): 135–9

Campisi C, Eretta C, Pertile D, da RE, Campisi C, Maccio A, et al (2007) Microsurgery for treatment of peripheral lymphedema: long-term outcome and future perspectives. *Microsurgery* 27(4): 333–8

Modolin M, Mitre AI, da Silva JC, Cintra W, Quagliano AP, Arap S, Ferreira MC (2006) Surgical treatment of lymphedema of the penis and scrotum. *Clinics* 61(4): 289–94

Weiss M, Baumeister RG, Hahn K (2002) Post-therapeutic lymphedema: scintigraphy before and after autologous lymph vessel transplantation 8 years of long-term follow-up. *Clin Nucl Med* 27(11): 788–92

Weiss M, Baumeister RG, Hahn K (2003) Dynamic lymph flow imaging in patients with oedema of the lower limb for evaluation of the functional outcome after autologous lymph vessel transplantation: an 8-year follow up study. *Eur J Nucl Med* 30(2): 202–6

### Venous thrombosis in patients with oedema secondary to advanced cancer: A prospective observational pilot study

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#### Aim

To investigate the symptoms and signs of upper or lower limb venous thrombosis in patients with advanced cancer presenting to a lymphoedema service.

#### Introduction

Existing tools to estimate clinical probability of venous thrombosis are less helpful in patients with advanced cancer and established lymphoedema. Accurate diagnosis is important in planning appropriate management of patients with oedema, including anticoagulation. A prospective study was performed to aid development of guidelines for managing such patients.

#### Method

Patients referred to the service are assessed for symptoms and signs which may suggest an underlying thrombosis. This information was collected prospectively and the assessing clinician rated the level of suspicion (percentage chance) of there being a thrombosis. Investigation results were compared with the clinical features. The project was approved by the hospice audit committee.

#### Results

Preliminary results have shown that over 14 months, 26 patients (28 episodes) had features on assessment that raised the possibility of venous thrombosis where the diagnosis had not been considered previously. Ultrasound or computer tomography (CT) scan confirmed thrombosis in 10 patients (36%), and in a further eight patients (28%) venous compression was demonstrated. 10 (36%) had neither.

Collateral veins were present in all 28 cases, regardless of the presence or absence of thrombosis. 90% of patients with confirmed thrombosis had sudden onset or worsening of oedema (63% of patients with compression, 60% of patients with neither), 60% of the thrombosis cases had pain (38% compression, 30% neither) and 60% of the thrombosis group had increased skin temperature (13% compression, 20% neither). Two patients who initially

had compression only, later developed thrombosis. We are not aware that any patient seen by the service without clinical features (and hence not included in this study) had a subsequent thrombosis.

#### Conclusions

Venous thrombosis is a common problem identified in patients with advanced cancer presenting to a lymphoedema service. The possibility of thrombosis had frequently been overlooked prior to assessment by the service. On the basis of this pilot study, clinical features, though readily identified, do not accurately predict which patients have thrombosis. Greater numbers may allow statistical analysis but, in conclusion, there needs to be a low threshold for further investigation.

#### Reference

Anand SS, Wells PS et al (1998) Does this patient have deep vein thrombosis? *JAMA* 279: 1094–9

### Evaluation of study days for DNs treating patients with chronic oedema

Marie Todd, Lymphoedema Nurse Specialist

#### Introduction

Effective treatment of chronic oedema requires a multiprofessional approach. Patients should be treated as locally as possible by generalist staff and referred to specialist staff when there are more complex treatment issues. This requires a more co-ordinated networking system. Referring practitioners have been favouring the term lymphoedema when chronic oedema is more appropriate, and this has resulted in a high number of patients requiring treatment of mild oedema being referred to specialist lymphoedema clinics. A recent audit of 181 referrals to the clinic revealed that 34% were inappropriate, with 31% of these having no swelling at all. This audit generated the need to develop study days to help improve knowledge and foster service delivery based on need rather than diagnosis. Success in this approach is reliant on district nurses (DNs) being supported in providing this care. The study days were therefore aimed at providing additional knowledge to complement their clinical skills in treating patients with chronic oedema.

**Development of practice**

The aims of the study day were:

1. To give an overview of the types and causes of chronic oedema
2. To differentiate between chronic oedema and lymphoedema
3. To demonstrate the application of short-stretch bandaging from toe to mid-thigh, including the technique of toe bandaging
4. To allow participants to practice this bandaging.

The development of these aims was based on results of the audit and professional experience working in collaboration with district nurses. The session was a mix of teaching and practice over three hours and was repeated on four separate occasions. In order to provide effective bandaging demonstration, it was decided that there would be a maximum of 10 participants and they should be trained leg ulcer nurses.

**Outcomes**

A total of four sessions have been

presented and 25 nurses have attended, four cancelled and 15 failed to attend. Two of the nurses brought a pre-registration student with them (*Table 1*). All of the sessions have been greatly oversubscribed.

**Discussion**

Chronic oedema is thought to affect 1.33/1000 population, but this is likely to be an underestimation. Glasgow has a population of 600,000 and this means that approximately 900 people suffer from chronic oedema. Treatment of chronic oedema is labour, time and resource intensive.

A study day has been developed to help prevent inappropriate referral to the specialist lymphoedema clinic and to support district nurses coping with difficult to manage patients. A combination of theory and practice in the application of bandaging was arranged for nurses who were already trained in the application of compression bandaging. The study afternoon was repeated on four occasions

and all four sessions were fully booked very soon after distribution of details. This indicates that there is a need to repeat these sessions and there are plans to re-run them in the autumn. A total of 25 nurses have attended the first four sessions but most surprising is the high number of non-attenders. This was very disappointing considering the number of nurses who were eager to attend but could not. However, this possibly highlights the difficulties nurses face attending courses because of clinical demands and staff shortages.

The sessions were highly evaluated and provided an opportunity for networking and enhancing a more co-ordinated approach to the management of patients with chronic oedema (*Table 2*). Many of the participants vocally requested more sessions on compression hosiery and measuring for made-to-measure garments. There are also plans to develop these, especially since there are more garments available on FP10 for community nurses to prescribe. JL

**Table 1**

**Details of attendance**

	Session 1	Session 2	Session 3	Session 4	Total
Places booked	11	10	11	12	44
Attended	6+1	7	4+1	8	25+2
Cancelled	1	1	2	0	4
Failed to attend	4	2	5	4	15

**Table 2**

**Evaluation of sessions**

Rating of presentation	No	Rating of practical session	No	Rating of overall session	No
Excellent	8	Excellent	12	Excellent	14
Very good	11	Very good	6	Very good	5
Satisfactory	–	Satisfactory	–	Satisfactory	–
Poor	–	Poor	–	Poor	–
Very poor	–	Very poor	–	Very poor	–



**BLS CONFERENCE 2009**

11–13TH OCTOBER, SHEFFIELD

THEME: 'BACK TO BASICS — THE NEXT STEPS'

The closing date for abstracts is 12th June, 2009. Abstracts for poster or oral presentation should be submitted electronically. Details are available on: [www.thebls.com](http://www.thebls.com).

Abstracts are welcomed in the following areas: research studies; audits; service development initiatives; educational initiatives; case reports and literature reviews.