

*COMMENTARY*

**LYMPHATIC FILARIASIS AND THE ISL CONSENSUS DOCUMENT**

S. Jamal

Department of Plastic Surgery, Thanjavur Medical College Hospital, Thanjavur, India

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At the general body meeting during the 19th International Congress of Lymphology (ICL) in Freiburg, Germany, I requested that the International Society of Lymphology (ISL) offer comments in the Consensus Document on the treatment of filarial edema. To date, this has not yet been accomplished. Therefore, I am providing my own reflections.

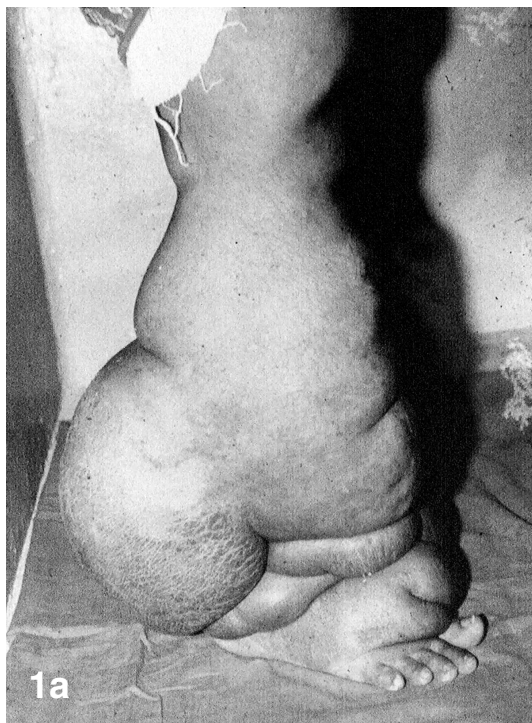
Since 1979, I have been presenting my experience on the management of filarial edema in the International Congresses of Lymphology (ICL) and treating patients with lymphatic filariasis for the past 4 decades. I have seen over 15,000 cases and operated on approximately 3,000 patients.

As per the ISL classification of lymphedema, there is no pitting on pressure, and there is no reduction of edema after elevation in Grade II and III (1). But in filarial edema of Grade II, III and IV (in our classification), there is a reduction in the size, a finding I reported at the 11th ICL (2). This difference relates to the fact that post-surgery and radiation to regional nodes, there is often extensive anatomical blockade to lymph flow whereas in filariasis, there is no such blockage, and the edema is due to over-

dilation and/or paralysis of the lymphatic vessels with valvular incompetence. Because of the reduction in edema after bed rest, many patients do not enter early treatment as they believe their swelling will be reduced to near normal status after simple bed rest.

For filarial edema cases, liposuction is not advisable as the mechanism of lymphedema is different due to the presence of the worm in the lymphatic vessels resulting in incompetence of valves leading to backflow of lymph and more fibrosis around lymphatics and blood vessels. The experience of those who attempted liposuction in these cases has been disastrous with development of chronic ulcers in the leg.

In my observation of 1,100 consecutive outpatient cases in two years (3), I noted only 15% giving a history of fever and adenitis preceding the development of edema, and 25% never had fever or adenitis in spite of a long history and elephantine leg (*Fig. 1a*). During the debulking operation for these patients, more fat was seen in the subcutaneous area, and the lymphatics were surrounded by fibrous tissue making it difficult to dissect the lymphatic vessel for cannulation (*Fig. 1b*). When they had occasional infection (*Fig. 2a*), excess fibrous tissue and fat was noted in the subcutaneous area (*Fig. 2b-d*) (3,4). But if the infection was



*Fig. 1. a) 35 year old female with 10 year history of leg swelling without fever and adenitis; b) portion of excised specimen showing mostly fat in the subcutaneous area.*

frequent, there was much more fibrous tissue in the subcutaneous area (Figs. 3,4).

To Ryan's questions regarding staging (4), I refer to my proposal for classification (2) in the 11th ICL. To that, the circumference measurement or limb volume should

be added along with a photograph to give a complete picture. To decide on the particular type of surgery needed, my classification is helpful.

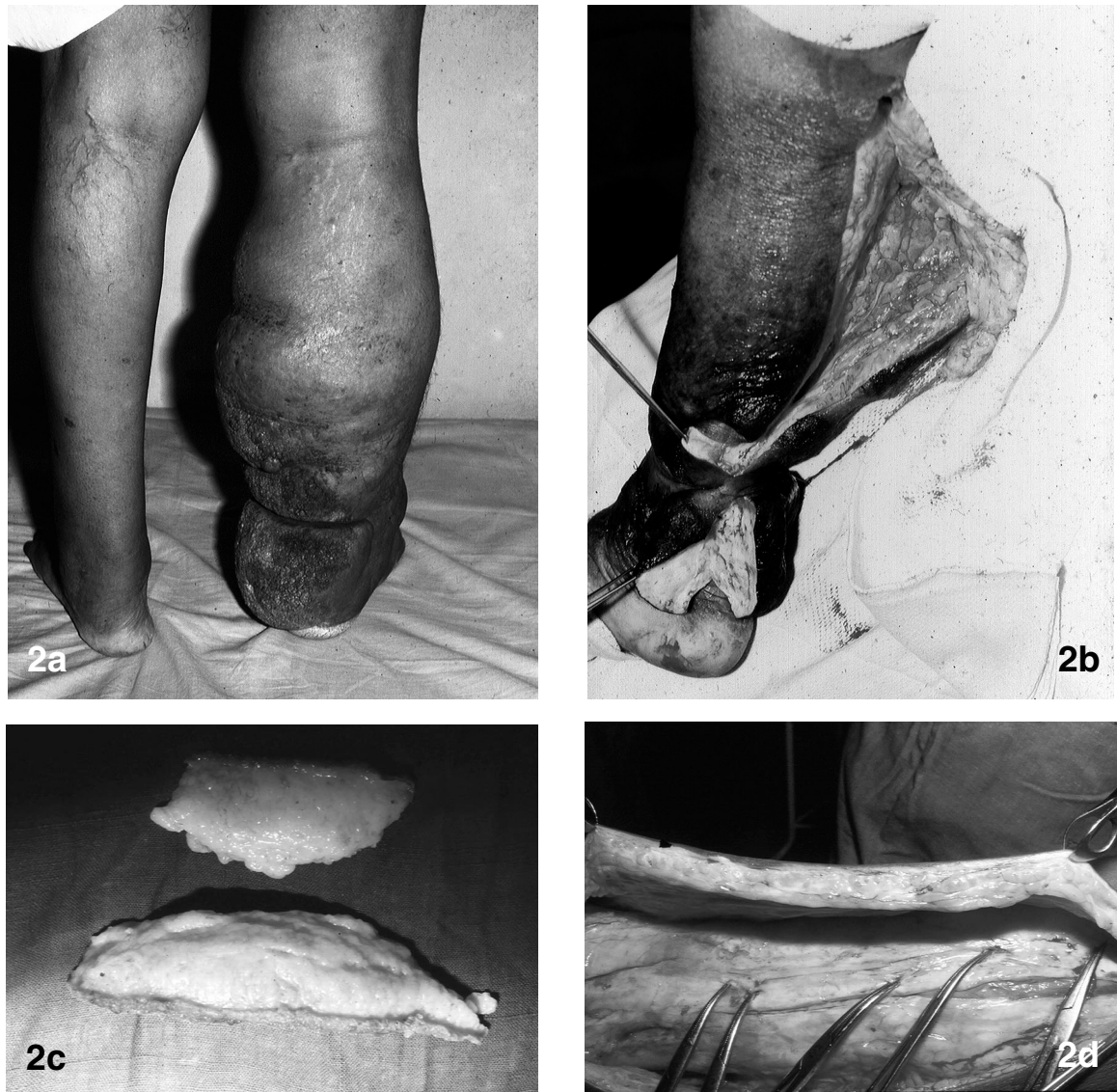
With regard to early detection of filariasis in the field, I have addressed this point in the 18th ICL meeting (3) that a portable microdetector radioprobe system first described by Witte and colleagues (5) to detect lymphatic functional alterations and multiple frequency bio-impedance analysis (commercially available) to detect pre-clinical edema described by Cornish and colleagues (6) may also prove useful in the field.

With regard to treatment – medical (7) may be adequate for stage II edema but if there are septic foci (dental caries, tooth or fungal infection), these need to be eliminated, otherwise the edema will increase.

In Stage III and IV, the edema increases and surgery is needed. Nodo-venous shunt surgery alone gives 85.4% immediate reduction and 78.3% reduction on long-term follow-up (10 years). Nodo-venous shunt and excision gives 84.4% immediate reduction and 76.3% on long-term follow-up (10 years).

I have offered the reasons for my success in treatment during the 19<sup>th</sup> ICL meeting (8). Namely:

1. Operate only on those in whom the size remains the same or there is reduction in edema after medical treatment.
2. Presence of a lymph node is mandatory.
3. Complete division of the long saphenous vein is a must.
4. There should be no backflow of blood in the vein when it is divided and if there is backflow, interpose a vein graft with intact valve between the lymph node and long saphenous vein.
5. The operated thigh should not be flexed until suture removal (6 days).
6. The person should sleep on a cot with the foot end elevated by 6 inches.



*Fig. 2. a) 38 year old female with 8 year history of leg swelling and occasional attacks of fever and adenitis; b) at operation, subcutaneous tissue consists of fat and fibrous tissue; c) excised portion of skin showing the thickness of subcutaneous tissue consisting of fibrous tissue; d) operative reflection of skin and subcutaneous tissue showing the thickness of subcutaneous fat.*

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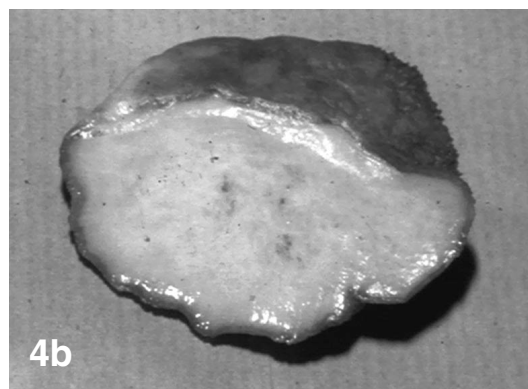
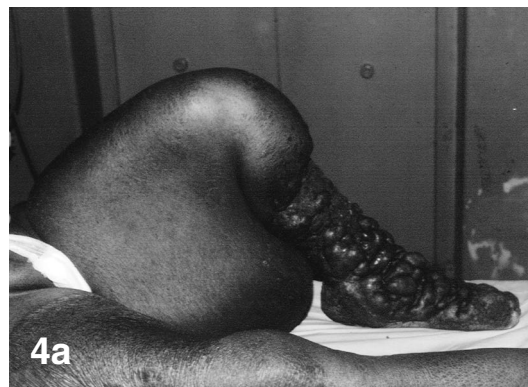
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*Fig. 3. a) 35 year old man with 10 year history of frequent fever, adenitis, and leg swelling; b) Excised specimen showing mostly fibrous tissue*

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*Fig. 4. a) 50 year old female who underwent Charles operation 15 years earlier and developed papillomatous and nodular projections in the skin grafted area; b) Excised nodule – the subcutaneous area with fibrous tissue of unripe pear consistency.*

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**Prof. S. Jamal MBBS, FRCS (Edin & Gals)**  
**AB (Plastic Surgery)**  
**Red. Professor of Plastic Surgery**  
**Thanjavur Medical College Hospital**  
**Thanjavur, 613007 India**