

LYMPHOEDEMA MANAGEMENT

Filaria patients with damaged lymphatic vessels often have more bacteria on the skin than usual. The large number of bacteria on the skin, multiple skin lesions, slow lymph fluid movement and the reduced ability of the lymph nodes to filter the bacteria cause inflammation characteristic of an acute attack. Repeated bacterial infections precipitate frequent acute attacks, which further damage the tiny lymphatic vessels in the skin, reducing their ability to drain fluid. This vicious cycle continues, aggravating the condition of the patient.

The lymphoedema management involves the following components:

- Washing,
- Prevention and cure of entry lesions,
- Elevation of the foot,
- Exercise
- Wearing proper footwear,
- Management of acute attacks.

2. WASHING

Good hygiene and treatment of entry lesions are important measures for managing lymphoedema. The patients should be encouraged to practice skin care and hygiene.

2.1. Supplies needed

(i) Clean water at room temperature, (ii) Soap (least expensive soap without perfume is usually the best), (iii) Basin, (iv) Chair or Stool, (v) Towel, (vi) Footwear within easy reach.

2.2. Check skin for

(i) Entry lesions, including very small lesions between the toes that can hardly be seen, (ii) Entry lesions between the toes may cause itching. Scratching can further damage the skin and can rovoke an acute attack; tell patients to avoid scratching, (iii) Toe nails should be trimmed in such a way that the skin is not injured. Do not try to clean under the nails with sharp objects as these can cause entry lesions.

It is important to check the skin every time the leg is washed because entry lesions allow bacteria to enter the skin and this will cause acute attacks. If entry lesions are found, they should be cleaned carefully.



Washing

2.3. Wash the leg

(i). Wet the leg with clean water at room temperature. Do not use hot water to wash the leg, (ii). Begin soaping at the highest point of swelling (usually around the knee), (iii). Wash down the leg towards the foot, (iv). Gently clean between all skin folds and between the toes, preferably using a small cloth or cotton swab, and paying particular attention to the entry lesions. Brushes should not be used as they can damage the skin, (v). Rinse with clean water, (vi). Repeat this careful washing until the rinse water is clean, (vii). Wash the other leg in the same way, even if it looks normal.



Drying

2.4. Dry the skin

(i). Pat the area lightly with a clean towel. Do not rub hard because this can cause damage to the skin, (ii) Carefully dry between the toes and between skin folds using a small cloth, gauze or cotton swab. Wet areas between the toes, skin folds and entry lesions promote bacterial and fungal growth leading to frequent acute attacks.

Washing and drying should be done daily ideally both morning and at night

3 . PREVENTION AND CURE OF ENTRY LESIONS

3.1. Entry lesions

are common in patients with lymphoedema and are most frequently found between the toes and deep skin folds and around the toe nails. Entry lesions, such as wounds, can also be found on the surface of the skin. Both fungi and bacteria can cause entry lesions. Fungal infections frequently damage the skin and create entry lesions, especially between the toes, and may cause itching. The entry lesions allow bacteria to enter the body through the skin and this can cause acute attacks. Fungi and bacteria can cause bad odour.

3.2. Fungal infections

are usually white or pink in colour and do not leak fluid. Bacterial infections may leak fluid that is thin and clear or thick and coloured.

3.3. Antifungal and antibacterial creams

can be used for local application.



Checking for Lesions

4 . ELEVATION

4.1. Elevation

Is important for patients with lymphoedema of the leg. It helps prevent fluid from accumulating in the leg by improving the flow in the elevated position.

4.2. The knee

should be slightly bent and a pillow placed under the knee for support.

4.3. While sitting,

raise the foot as high as is comfortable, preferably as high as the hip. If sitting on the floor, place a small pillow under the knees. If lying down, the foot can be raised by placing a pillow under the mattress.



Applying Antifungal/Antibacterial Creams

Patients with heart problems should not elevate their legs unless advised by a doctor

5. EXERCISE

5.1. Exercise

is useful for patients with lymphoedema and in general, the more they exercise the better they are. Exercise helps by pumping the fluid and improving drainage. However, patients should not exercise during acute attacks.

5.2. Besides walking

short distances, simple exercises can be done.



Foot Exercise

5.2.1. Standing

(up on the toes exercise): (i) Stand with both feet slightly apart, holding on to a wall, a person or other support, (ii) Raise on to the toes of both feet at the same time and then sink back down to flat feet, (iii) Repeat 5-15 times or as often as comfortable. If the patient is unable to rise on both feet at the same time, the exercise can be done one foot at a time.

5.2.2. Sitting or lying down

(toe point exercise): (i) While sitting or lying down, point toes towards the floor, (ii) Then bend (extend) the toes upwards, (iii) Repeat 5-15 times or as often as comfortable, (iv) Repeat with the other leg.

5.2.3. Sitting or lying down

(circle exercise): (i) While sitting or lying down, move the foot in a circle to the right and to the left, (ii) Repeat with the other leg, (iii) If sitting on the floor, protect the heel with a flat pillow.

6 . WEARING PROPER FOOTWEAR

Proper footwear protects feet from injury.

Patients should avoid footwear that makes their feet hot and sweaty, or that are too tight

7 . MANAGEMENT OF ACUTE ATTACKS

The reduction in the frequency of the acute attacks is an indication that the patient's condition Foot Exercise is improving. An acute attack is painful. The patient may complain of fever, nausea, headache and soreness of the lymph glands. Most patients can easily care for their acute attack. The patient should rest and elevate the leg comfortably as much as possible at home.

The following simple procedures can alleviate the symptoms:

1. A cloth soaked in water and placed around the leg can relieve pain. The leg can be soaked in bucket of cold water.
2. The leg should be washed with soap and clean water but more gently and carefully.
3. After drying, antiseptic can be applied to the skin and medicated cream.
4. The patient should drink plenty of water
5. Paracetamol can be taken for fever every six hours until the fever lessens.
6. Oral antibiotics can shorten the attack and are recommended.

**No exercise during an acute attack as such exercise will be painful.
Cold compress will help the patient.**

Patients, with any of the signs listed here, should be seen by a doctor: (i) Very high fever, confusion, headache, drowsiness or vomiting, (ii) Fever, shaking, chills, or pain in the leg that does not respond to treatment within 24 hours, (iii) Splitting of the

skin because of rapid increase in the size of the leg, (iv) Pus in the area affected by the acute attack.

The lymphoedema of lower limb is classified into three grades as given below:

Grade I lymphoedema: mostly pitting oedema; spontaneously reversible on elevation.

Grade II lymphoedema: mostly non-pitting oedema; not spontaneously reversible on elevation.

Grade III lymphoedema (elephantiasis): gross increase in volume in a Grade II lymphoedema, with dermatosclerosis and papillomatous lesions.

Stage	Description of condition	Illustration
Stage 1	Swelling/lymphoedema totally reversible overnight, Skin soft & smooth, Pitting oedema, No entry lesion, No acute attack	
Stage 2	Lymphoedema with normal skin, Swelling is not reversible overnight	
Stage 3	Swelling/lymphoedema is not reversible, Shallow skin folds present (the base of the fold should be visible when the patient moves the limb) Skin thickened, Entry lesion may be seen, Acute attack may occur	
Stage 4	Swelling/lymphoedema not reversible, Knobs (bumps and lump present), Skin thickened, Shallow folds may be seen, Entry lesion may be seen, Acute attack commonly occur	
Stage 5	Swelling not reversible, Deep skin fold present (the base is not visible when the patient moves the limb but may be visible when separated by finger), Skin thickened, Shallow folds/knobs may be seen, Entry lesions common, Acute attacks common	
Stage 6	Swelling not reversible, Warty (Mossy) appearance, Shallow/deep folds and knobs may be seen, Entry lesions common, Acute attacks common large swelling, incapacitated (in absence of ADL)	
Stage 7	Irreversible requiring help for routine activities/may be bed ridden	