
SELF-CARE INFO ON LIPODERMATOSCLEROSIS

What is Lipodermatosclerosis?

Lipodermatosclerosis (also known as *hypodermitis scierodermiformis* or *sclerosing panniculitis*) is a chronic inflammatory condition characterised by subcutaneous fibrosis and hardening of the skin on the lower legs. This often causes the legs to resemble an inverted champagne bottle (see figure 1).

Lipodermatosclerosis is a common condition, affecting middle-aged or older people. It is more common in women and is associated with immobility and a high body mass index (obesity).

It occurs in patients who have venous insufficiency - when the leg veins are impeded in allowing blood to flow normally back up to your heart, either from valve incompetence or varicose veins.

This condition is a type of panniculitis (inflammation of subcutaneous fat) affecting the lower legs. The condition is commonly confused for cellulitis (inflammation of the skin), but unlike cellulitis, Lipodermatosclerosis commonly affect both legs.

Fig.1 Legs resembling champagne bottle



Causes

Lipodermatosclerosis is multifactorial with several issues thought to work together to cause the condition. It is an inflammatory skin condition resulting from underlying venous insufficiency. This is caused by:

- *Venous incompetence* (leaky valves)
- *Venous outflow obstruction* which can be secondary to inflammation or increased clotting
- *Dysfunction of the calf muscle pump*

The resulting *venous hypertension* causes an increase of white blood cells called leukocytes within the veins, which then migrate into surrounding tissue. The leukocytes become activated inducing a chronic inflammatory state. Increased collagen production leads to skin hardening and fibrosis.

Symptoms

Depending on the patient, this disorder may involve one or both lower legs. The disorder is characterised by skin induration or hardening, redness of the skin, increased pigment, swelling, and extensive fibrosis also referred to as sclerosis or scarring in the skin and subcutaneous tissue.

The patient may also experience tapering of the legs, especially above the ankles that forms a constricting band to give a characteristic shape.



Lipodermatosclerosis can either be acute or chronic.

Acute phase Lipodermatosclerosis

- A patient may experience painful inflammation, especially in the inner leg just above the ankle.
- It may mimic cellulitis, with tenderness, warmth, redness, pain, itch, aching, scaling and a feeling of swelling or heaviness in one or, more often, both lower limbs
- Signs may be localised to a single plaque but are usually more widespread
- The skin thickens but is not as sharp and painful as the chronic Lipodermatosclerosis.
- This largely affects the middle-aged.

Chronic phase Lipodermatosclerosis manifests in the following ways:

- Moderate redness and pain continue
- Hardening and thickening - fibrosis may result in significant narrowing of the distal lower limb, causing the leg to have an 'upside-down champagne bottle' appearance.

- Other features of chronic venous insufficiency may be present, including hyperpigmentation of the skin from haemosiderin deposition, atrophie blanche (Small white scarred areas), varicose veins, venous eczema, and venous ulcers
- Liquid released in the leg (oedema)

Diagnosis

Lipodermatosclerosis is usually diagnosed clinically. It is useful to know if there is a previous history of things like skin problems, lower leg injury, thrombosis, phlebitis or diabetes. A family history of varicose veins may increase the risk of chronic venous insufficiency. It is also important to establish how the lower legs have changed in appearance or how any skin changes may have evolved.

In most cases specific tests are not necessary but the extent of any underlying venous insufficiency may be confirmed using Doppler ultrasound and may be used to determine the best treatment approach or whether there is need for surgery.

A biopsy can be helpful in a few circumstances, but must be performed with caution because of the likelihood of poor wound healing.

Treatment

Examples include:

- *Physical activity* (walking) should be encouraged to increase the functionality of the calf muscle pump.
- *Compression therapy* - The most common treatment is compression therapy to correct venous stasis or improve the venous insufficiency by reducing the oedema. The compression stockings put enough pressure on the skin near the ankle while exerting less pressure on the patient's calf.
- *Weight reduction* - One has to check weight and reduce excess weight as obesity has been associated with the condition. This calls for regular exercises.
- *Topical Steroid* - Patients can receive clobetasol propionate, which is an ultrapotent topical steroid, or they may get intralesional triamcinolone injections to help in reducing inflammation.
- *Tetracyclines*, such as doxycycline or minocycline, have anti-inflammatory and anti-angiogenic properties that may provide benefit
- *Leg Elevation* - One can also do a leg elevation, for example, raising legs on a pillow when you are resting or sleeping, not sitting, or standing in one place for a long time, but when you do, bend and straighten legs every few minutes. This helps to keep blood moving in your legs back to the heart.
- *Keeping the skin well moisturised* helps to keep the area around the ankles healthy. It is not however recommended to use topical antibiotics, such as neomycin, drying lotions such as calamine, lanolin, benzocaine or other creams that numb the skin.
- *Pentoxifylline* - A patient can use pentoxifylline to reduce the increased blood flow and capsaicin to reduce pain.
- *Anabolic steroids* - such as stanzolol, danzolol and oxandrolone have been used to help with the cutaneous manifestations and painful nature of the lesions. The fibrinolytic agents use enzymatic action to help dissolve blood clots.
- *Surgery* - Doctors can also perform a vein surgery procedure, endovenous laser ablation or sclerotherapy and ultrasound therapy, which is also suitable to help patients with circulation.

Complications

Lipodermatosclerosis is associated with poor wound healing because of the chronic inflammatory state and fibrosis. Lipodermatosclerosis, ulceration, and venous disease may cause complications of immobility leading to increased body mass and other diseases associated with increased weight such as hypertension.

Useful contacts

- Ask your pharmacist
- Patient UK - www.patient.co.uk
- NHS Choices, www.nhs.uk/conditions/

If you have further questions:

Call the ***practice*** on *01285 653184 or 01285 653122*

If you require ***urgent*** medical advice, call *111 (24 Hrs)*

In an ***emergency*** call ***999***