

## **Thread Veins**

Various forms of vascular lesions, including telangiectasia and rosacea are one of the most common cosmetic complaints for people. A number of pulsed lasers and continuous wave lasers have been used to treat these and other facial vessels. To varying degrees these laser treatments have been successful however various side-effects, such as pronounced purpura (associated with vessel rupture) and pigmentary changes are often disturbing and of great concern to the client.

Recently, intense pulsed light (IPL) treatment has proven highly successful in the treatment of vascular lesions presenting on the face, neck and décolleté. IPL systems operate on the principle of selective photothermolysis in which target vessels are selectively damaged with minimal risk of injury to the surrounding healthy tissue. In general, when light enters the skin, the majority of light is absorbed by blood, melanin and water. Different wavelengths of light (different colours) are absorbed in different amounts. The Lumina, developed by Lynton Lasers Ltd a company globally recognised as a leading British manufacturer of laser and light systems for niche applications, effectively and efficiently treats facial vascular lesions with minimal risk of side effect. The Lumina vascular application covers a wavelength range from 585 to 1100nm which targets absorption peaks in haemoglobin and oxy-haemoglobin. In addition, the Lumina comprises a multiple pulsing facility with variable interpulse spacing, allowing the operator to select appropriate parameters to treat vessels of different sizes and at different depths. In this way, the Lumina system predominantly targets blood vessels by delivering sufficient energy to thermocoagulate the entire vessel while causing minimal damage to the surrounding skin. Following treatment, the damaged vessels are absorbed by the body and little or no trace of the initial lesion remains. Treatment is mildly uncomfortable and short term erythema and oedema is usually observed but typically persists for only a few hours post treatment. Total number of treatments required varies depending upon the size and density of lesions ranging from as little as one and up to five sessions.

The Lumina is not only capable of successfully addressing facial vascular lesion but offers a long-pulsed Nd:YAG laser to treat leg veins. Telangiectasias of the legs occur in 40% of women and 15% of men and are often of great cosmetic concern. Nd:YAG lasers emit a wavelength of 1064nm. At this wavelength there is a broad peak (approximately 800 to 1100nm) in the absorption spectrum of blood. Skin penetration depths are relatively high (approximately 1mm) as there is little absorption by melanin at these wavelengths, enabling safe treatment of darker skin types. These lasers have proved particularly effective in the treatment leg veins and treatment of larger and deeper facial veins, such as those that occur frequently around the nose.