

Cynosure's Cynergy™ Vascular Workstation Treats Rosacea and Facial Redness with Excellent Results

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The Cynergy Vascular Workstation is a unique laser system that combines a pulse dye laser (PDL) with a 1064nm Nd:Yag in one handpiece. This allows the practitioner to fire PDL followed by a high powered Nd:YAG with short, medium, long and extended delays between wavelengths. Both wavelengths are well absorbed by blood as well as melanin. The PDL has a more shallow depth of penetration due to its higher absorption coefficient, while the 1064nm Nd:YAG is absorbed in a deeper layer. The PDL is fired first and is absorbed by blood about fifty times more efficiently than Nd:YAG. Because of this, very little energy (less than 10J/cm²) is needed to effectively heat the blood to cause conversion to methemoglobin and/or thrombus. This is accomplished at a relatively shallow depth. The benefit of this is the decreased background heating with less risk of collateral damage, allowing the more deeply penetrating 1064nm Nd:YAG to act on them. The 1064nm Nd:YAG is well absorbed by thrombus and methemoglobin (about three to five times better than by hemoglobin), therefore only modest fluence is required for effective results. Again, because a lower fluence can be used, there is less risk for side effects.

Cynosure, Inc. (Westford, MA) recommends this system for treatment of vascular lesions, pigmented lesions, facial and leg veins, rosacea, port wine stains, sun damaged skin and wrinkle reduction. Our group has used this laser system effectively to treat rosacea and generalized redness predominantly on the face with excellent results.

The office has treated 108 patients over 19 months. The total number of treatments were 238, for an average of 2.2 treatments per patient. There were 19 males and 89 females. Average ages were 42 for women and 44 for men. In general, no adverse reactions were seen other than transient redness. Purpura was very minimal if seen at all and no patients had any major complications. The procedures were well tolerated by the patients and often in conjunction with topical skin care regimens for rosacea.

Patient 1



Patient 1 was treated for facial rosacea and brown spots on her face and neck. She was treated four times with a reduction in her redness and brown spots. The PDL was set at 7 J/cm²; Nd:YAG was set at 40 J/cm² with a medium delay.

Patient 2



Patient 2 was treated for rosacea and redness on her face, predominantly on her cheeks and chin. She was treated with PDL 8-11 J/cm²; Nd:YAG at 45-60 J/cm² with a short delay over four treatments.

Patient 3



Patient 3 was treated for rosacea on his nose three times with PDL 7.5-8 J/cm²; Nd:YAG at 50 J/cm² with a medium delay, as well as a spot treatment of PDL 10.5 J/cm²; Nd:YAG at 65 J/cm².

Patient 4



Patient 4 was treated four times for rosacea and facial telangiectasias. The settings for his treatments were PDL 6-9.5 J/cm²; Nd:YAG at 50-55 J/cm² with a short delay.

Patient 5



Patient 5 was treated for rosacea four times with PDL alone at 9-12 J/cm² and twice with PDL 8-12 J/cm²; Nd:YAG at 45-80 J/cm² with a short delay.

Patient 6



Patient 6 was treated for rosacea of the nose and cheeks twice with PDL 8.5-9 J/cm²; Nd:YAG at 45-50 J/cm² with a medium delay.

Our office has been very pleased with the results that the Cynosure Cynergy Vascular Workstation laser with Multiplex™ technology can deliver. Patients were very pleased with their results and had little or no downtime or discomfort. In our opinion, Cynosure's Cynergy Vascular Workstation laser with Multiplex technology can safely and effectively treat vascular lesions.