

Fractional CO₂ Laser for Vaginal Atrophy Treatment



Fractional CO₂ Laser for Vaginal Atrophy Treatment

Prof. A. Perino, M.D. (Palermo)

he loss of cellular glycogen and reduced blood supply in the vaginal tissues, which are consequential to the reduced oestrogen rate during menopause, represent the main cause of significant morphological and functional changes. The discomfort that derives from these changes associated with alterations in the vaginal mucosa interferes with the quality of life of the woman and the couple's relationship.

Taking advantage of progress in the gynaecological field of fractional CO_2 laser, a viable, innovative and highly technological solution is available today.

It consists of actual regeneration treatment of the vaginal tissues, which can be defined as "photo-eutrophication" of the tissues and improves the condition of the vaginal mucosa using a minimally invasive laser-assisted procedure. The cellular changes caused are rapid but transient, and are characterised by the over-expression of proteins called "heat shock" (HSP) that appear to play a key role in coordinating the expression of various growth factors such as TGF-beta, which is a key element in the inflammatory response and in the recruitment process of new elastic fibres.

Irradiation of the vagina by means of a specific probe, specifically designed for the vaginal anatomy, reactivating the synthesis of extracellular matrix and collagen, leads to the recovery of the tissue trophism with a rapid regenerating effect.

This stimulation and regeneration process takes a few weeks to be completed and the results will be better appreciated after about a month and a half after the treatment. Acting on the factors that determine dryness, weakness and loss of elasticity of the vaginal wall, this treatment can eliminate those unpleasant sensations of itching, irritation and pain, which tend to worsen especially during sexual intercourse.

The vaginal application of the ${\rm CO_2}$ laser can also be an effective response to the problem of treating symptoms of vaginal atrophy in cancer patients, especially if subjected to endocrine therapy and/or chemotherapy.

In particular, we have focused our attention on women who suffer from breast cancer or genital malignancies, on whom it is not unsafe to use oestrogen therapies, but who can benefit significantly from laser technology, with no risk.

Lastly, our field of application has recently been extended to patients with urogynaecological disorders, specifically, women during or postmenopause osteoporosis with altered bladder sensitivity, considering the possible improvement of such disorders as a result of remodelling the anterior vaginal wall.

In this sense, we are pursuing a study, in collaboration with AIUG (Italian Association of Urogynaecology), in order to show the possible additional advantage of vaginal CO₂ laser in such patients.













www.dekalaser.com

DEKA M.E.L.A. s.r.l.

Via Baldanzese,17 - 50041 Calenzano (FI) - Italy Tel. +39 055 8874942 - Fax +39 055 8832884