

Clinical Applications - Hair Transplant

The Use of Infrared Coagulation in Hair Transplant and Scalp Reduction Surgery

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The infrared coagulator, a spin off of laser technology, has been used for more than a decade, first in Europe and then in the United States, for the in-office elimination of first and second degree hemorrhoids. Even more recently, it has been employed in the treatment and removal of unwanted tattoos. This device has been FDA approved for both anorectal and dermatologic applications.

Within the last year, we have conducted a thorough study in our practice of the use and comparison of electrocoagulation, radiosurgical coagulation, and infrared coagulation during both hair transplantation and scalp reduction surgery.

The infrared coagulator with its multiple-sized tips and pinpoint accuracy has proven to be superior (especially in a wet field) in providing excellent hemostasis, allowing minimal blood loss, and in allowing the clearest visual field in performing both hair transplant and scalp reduction surgery. Because no ground or antenna plates are necessary for the use of the device, it is extremely safe and effective and thus minimizes both patient risk and electrical shock. Its excellent effect in a wet field (it's used in bleeding hemorrhoids) as well as its cumbersome size and versatility, makes it the ideal instrument for use during hair transplant and scalp reduction surgery.

The device has been tested in the treatment of arteriovenous fistulas in the donor area of the scalp as well and has proved to be quite safe and effective. This paper presents a study encompassing 110 patients undergoing either hair transplant or scalp reduction surgery. Each different modality of coagulation is utilized for the various transplant or scalp reduction sessions on the same patient. Comparisons of effectiveness and postoperative complications are made. Detailed results and photographs are presented.

The infrared coagulator (IRe), developed 15 years ago in Germany (Figure 1), shares properties with an infrared laser but differs from it because of the IRC's non-coherent multispectral source of light.

1 The IRC has been applied to various aspects of medicine including hemorrhoidal surgery, nasal surgery, and dental surgery, as well as dermatology. The IRC has been widely publicized lately in the treatment of tattoos, as both an inexpensive and satisfactory method. Ninety-five percent of patients reported satisfactory results.

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