



skin cooling

feel the difference



Zimmer



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AestheticDivision

50,000

SOLD CRYOS –
WORLD MARKET LEADER



The new Cryo 7- Cold air for highest patient comfort



The new Cryo 7: The skin cooling system designed for superficial laser skin procedures.

The Cryo 7 cold air device is intended to minimize pain and thermal injury during laser and dermatological treatments and for temporary topical anesthetic relief for injections.

Unlike other cooling methods, such as contact cooling, cryogen spray or ice packs, the Cryo 7 can cool the epidermis before, during and after the laser energy has been applied, without interfering with the laser beam.



Zimmer MedizinSysteme Cryogenic Competence, Made in Germany

Cold air cooling is widely used in dermatological laser therapy. We investigated the influence of cold air cooling at different skin temperatures on therapeutic outcome and side effects of pulsed dye laser treatment of facial telangiectasia

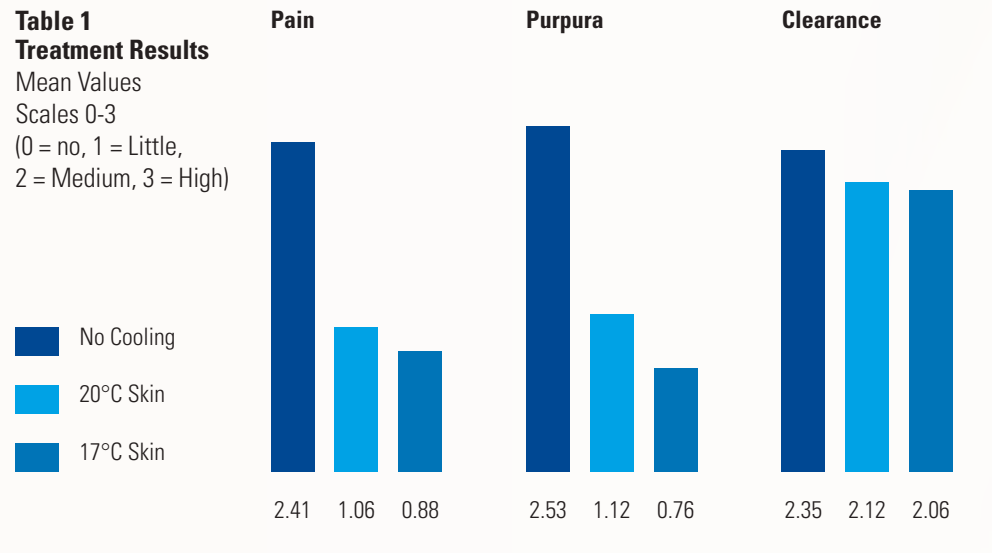
Evaluation of different temperatures in cold air cooling with Pulsed-Dye Laser

Stefan Hammes and Christian Raulin, MD* Laserclinic Karlsruhe, Karlsruhe, Germany

Lasers in Surgery and Medicine 9999:1–5 (2004)

Table 1
Treatment Results

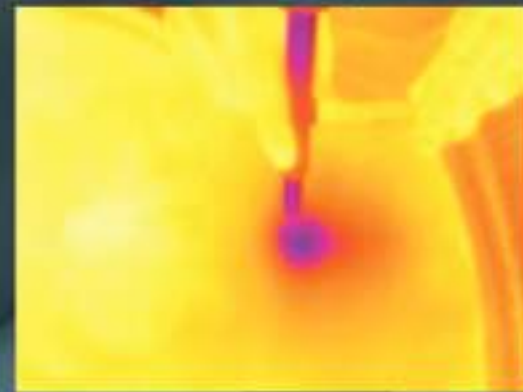
Mean Values
Scales 0-3
(0 = no, 1 = Little,
2 = Medium, 3 = High)



Results

Without cooling, purpura (2.53), pain (2.41), and clearance (2.35) were rated medium to high. Cooling to 20°C reduced purpura (1.12) and pain (1.06), whereas the clearance (2.12) was only slightly affected. Cooling to 17°C reduced purpura (0.76) and pain (0.88) even more, the clearance (2.06) was lowered marginally. Most patients preferred cooling to 20°C skin temperature.

Thermal Image



recommended temperature range between 10°C and 15°C

Study Design / Materials and Methods

From September 2002 to February 2003, 17 patients with previously untreated facial telangiectasia underwent a single treatment session with flash-lamp pulsed dye laser (3.5 J / cm², 585 nm, 0.45 milliseconds pulse length, 10 mm beam diameter, Cynosure 1 V). The treatment area was divided into three sub-areas: no cooling, cold air cooling to 20°C and to 17°C skin temperature.

The skin temperature was monitored by a prototype infrared sensor system which controlled the temperature of the cold air stream (Cryo 5).

In a prospective study, we collected data on purpura, pain, clearance, and patient satisfaction on numerical analog scales (NAS) from 0 (meaning »no«) to 3 (meaning »high«).

Conclusion

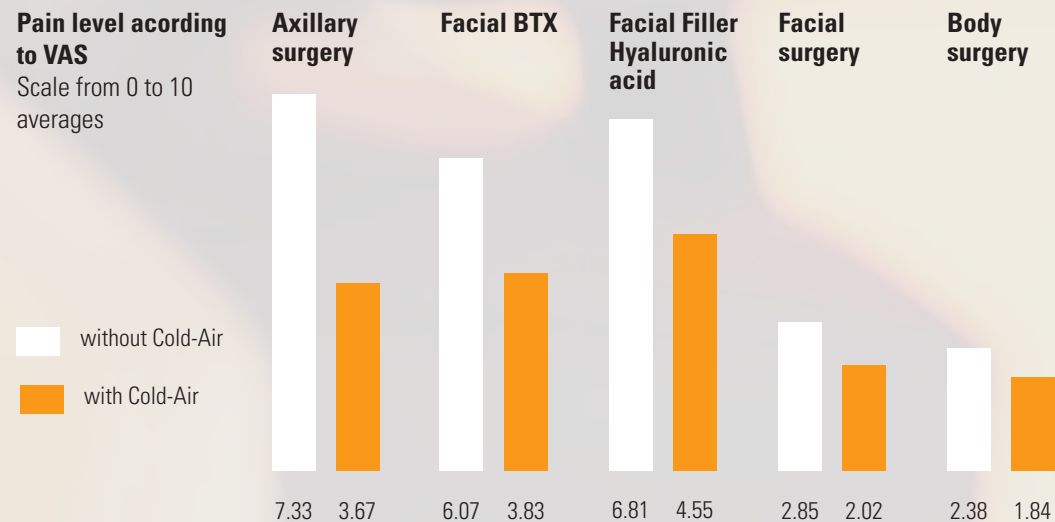
In dermatological laser therapy of facial telangiectasia, the use of cold air cooling can significantly reduce side effects and increase patient satisfaction while only slightly affecting clearance. Cooling to 20°C skin temperature proved to be a well-balanced middle course. For the practical use of cold air cooling, we thus recommend cooling to a level which the patient can tolerate without problems and to try to increase the energy densities.

Painreduction during skin injections by cold air application

Dr. Markus Steinert, Laserklinik Dr. Steinert, Biberach, Deutschland

Material and method

The treatment with and without cold air application was conducted in halfside comparison. The force of the air current corresponded with level 5 of the instrument Cryo by the company Zimmer MedizinSysteme (scale of levels 0-9). Each patient served as his/her own monitoring, as the intervention took place symmetrically on both body halves, the cold air treatment however only on one half. Measured was the subjectively declared pain by means of a visual analog scale of 1-10, whereby 1 indicated no pain and 10 the most severe imaginable. As pain occurrence was applied the prick with the injection needle, either to inject BTX, Hyaluronic acid or a local anesthetic.



The cold air was applied to the patients during the interventions. The fan level 5 of the instrument Cryo 6 (company Zimmer MedizinSysteme, Neu Ulm) was used. The cooling was applied during the complete duration of the injection (approx. 1 – 2 minutes). An exact cool air nozzle opening of 5 mm was used. The distance between the cool air nozzle opening and the skin surface was 3 cm on average. Used were the hyaluronic acid products of the company Zimmer MedizinSysteme *Z Fill* refresh for subdermal injection and *Z Fill* deep for intra-dermal injection.



Results

All patient groups had significantly less pain after the treatment with cold air than without cold air. This also corresponds with the well studied pain reduction effect of cold air. Cold air relieves pain reliably in cosmetic interventions. Especially significant was the pain relief during the non-surgical treatments with injections of Botulinumtoxin and Hyaluronic acid-fillers. Cold air reliably reduces the pain of the pre-treatment of cosmetic interventions by allowing a painless injection of BTX, hyaluronic acid or a local anesthetic.

-30°C



Ease of use – Redesigned

The Cryo 7 is operated using a brilliant, high-resolution, 10-inch touch display. Individual programmes can be stored. All of the important operating elements are clearly arranged and easy to reach, thanks to the higher, ergonomic design. This allows successful operation from the very start.

The optional supporting arm facilitates hands-free operation. The light tube can be connected to various laser handpieces through nozzles or adapters. The air stream can be easily controlled by the user.

Energy- and cost-efficient

The operation of the new Cryo 7 does not result in any consumption costs. The amount of defrost water is monitored and the defrosting function ensures smooth operation. The air filter is readily accessible and can be easily replaced if soiled.

The new standby mode further improves the energy efficiency of the Cryo 7, which is designed for reliable all-day operation.

Numerous technical innovations allow the Cryo 7 to be operated even more quietly. A significant comfort factor for patients and medical staff.

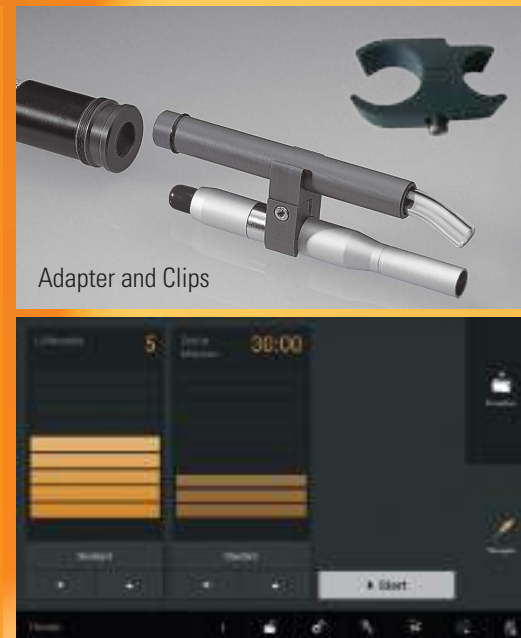
Zimmer
Medical

Cryo 7 – Completely new. Quite familiar!



The advantages at a glance

- Superior technology – proven in practice more than 50,000 times!
- Very simple operation and safe application
- Modern, ergonomic design and quiet operation
- Improved energy efficiency and no consumption costs
- Practical glass shelf ideal for laser, IPL or suction systems
- More patient comfort due to quieter operation
- Flexible connection of various adapters
- Practical holding arm for easy treatment



Options

Technical Data



Power supply	220-240 V / 50-60 Hz
Power input max.	1,5 kW
Stand-by function	50 W
Protection according to IEC 60601-1	I, Typ B
Medical device	Class IIa
Treatment tube length	250 cm
Therapy air flow	9 levels
Housing dimensions	H 1060 mm / B 500 mm / L 560 mm
Weight	60 kg

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