

Treating Congenital Hypertrichosis Lanuginosa with the GentleYAG®

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Introduction

The GentleYAG is a well-known hair removal laser uniquely configured to treat all skin types safely and effectively.

This paper reports on the results of using this 1064 nm Nd:YAG laser to treat an extremely rare condition known as congenital hypertrichosis lanuginosa.

Method

An 11-year-old boy presented with hairs all over his body, except on the palms of his hands and soles of the feet. The hairs were thin and silky at birth, but thickened and darkened with age. Facial hair measured 5–8 cm in length.

No family history of hypertrichosis disorder was reported. Other family members were found not to be exhibiting similar hair growth. There was no suspected drug history during pregnancy.

In the four to five years prior to laser treatments, parents tried various homeopathic remedies and hair removal creams with no success. Upon clinical diagnosis of congenital hypertrichosis lanuginosa, a long-pulsed Nd:YAG 1064 nm laser (Candela's GentleYAG) was selected to treat the hairs on the face and neck of the patient.

The pretreatment regimen included shaving the treatment area. A topical anesthetic was then applied one hour prior to treatment. The young boy's face was also pre-cooled with an ice pack.

Subsequent to the skin prep, three treatments were administered six weeks apart. Treatment parameters were as follows: fluence 30 J/cm²; spot size 15 mm; pulse duration 30 ms; and Dynamic Cooling Device™ (DCD™) 20/10/20 ms

Results

Seventy to eighty percent hair reduction was achieved after three laser treatments on black and brown hair. Velous hairs without pigment did not respond. Treatment of the periocular regions of hair growth were delayed until eye shields could be secured for the treatments.

Discussion

Congenital hypertrichosis lanuginosa is a very rare genetic disorder (incidence one in one billion) with only about 60 cases verified in the world since the middle ages. The syndrome consists of excessive hair growth on the infant at birth. Normally, babies *in utero* are covered in lanugo hair that is unpigmented, very soft and silky, and is usually shed around eight months' gestation. It is replaced then with fine vellus (the fine hair present on the body before puberty) hair and scalp hair in preparation for birth. In congenital hypertrichosis, the lanugo hair continues to grow and this long fine hair persists throughout life.

Congenital hypertrichosis lanuginosa is usually accompanied by gingival hyperplasia (gum and tissue disease). Other abnormalities associated with the condition seem to be mostly associated with the eyes, nose, shape of the face and some nerve palsy.

This genetic defect is believed to be an autosomal dominant trait with variable expressivity and is located at chromosomal site Xq24–q27.1. This is the first reported case treated with laser to date.

Depilatories, plucking, waxing and shaving are all means of temporarily removing hairs. Recently, lasers have been found to be useful for hair reduction.



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The aim of this paper is to highlight the effectiveness of the Candela GentleYAG laser to treat hypertrichosis in general and specifically the very rare syndrome known as congenital hypertrichosis lanuginosa.

As some individuals with severe hypertrichosis have sadly been displayed in carnival sideshows with names like “dog-boy” or the “bearded lady,” the ability to offer a permanent resolution to this patient suffering from a rare but nonetheless unfortunate disease indeed has been rewarding.



Figure 1 – Before treatment (right side) After third treatment (right side)



Figure 2 – Before treatment (left side) After third treatment (left side)

Treatment parameters are subject to change—please consult your sales representative or clinical consultant, or visit www.mycandela.com to obtain current information regarding the use of your Candela device.

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