Laser hair reduction for hidradenitis suppurativa warrants insurance coverage

Alexis E Carrington[1] MD, Marjon Vatanchi[2] MD, Raja Sivamani[3-6] MD MS AP

Affiliation: [1]Department of Medicine, Mount Sinai Icahn School of Medicine Elmhurst Hospital, Elmhurst, New York, USA, [2]Department of Dermatology, The Warren Alpert Medical School at Brown University, Providence, Rhode Island, USA, [3]Department of Dermatology, University of California Davis, Sacramento, California, [4]Department of Biological Sciences, California State University, Sacramento, California, USA, [5]College of Medicine, California Northstate University, Sacramento, California, USA, [6]Pacific Skin Institute, Sacramento, California, USA

Corresponding Author: Alexis E. Carrington MD, Department of Medicine Mount Sinai Icahn School Elmhurst Hospital, 79-01 Broadway, Elmhurst, NY 11373, Tel: 718-334-3440, Email: aecarring@gmail.com

Abstract

Hidradenitis suppurativa is a chronic, painful disease that significantly reduces quality of life. Laser hair reduction is one modality that can be used in combination with other treatments to ameliorate the condition. We argue that insurance should provide coverage for this necessary service.

Keywords: hidradenitis suppurativa, insurance, laser

Introduction

With a prevalence of 1-2%, hidradenitis suppurativa (HS) is a chronic inflammatory disease consisting of painful abscesses and draining sinus tracts affecting one or both axillae, inguinal folds, inframammary regions, and gluteal cleft [1].

Despite pharmacologic and surgical therapies for this condition, recurrence remains a problem [1]. Adjunct therapies such as laser hair reduction have been utilized in the management of HS. Laser hair reduction reduces the frequency of painful flares by decreasing the number of hair follicles, sebaceous gland activity, and bacteria load in affected areas [2]. This article discusses the evidence supporting laser hair reduction for medical management of HS and the necessity for insurance coverage in this setting.

Discussion

Hidradenitis suppurativa creates a scarring and persistent inflammation of the terminal hair follicles of apocrine gland-bearing areas. Laser hair reduction targets the hair bulb decreasing the number of hair follicles. Long wavelength 1064nm neodymium-doped yttrium aluminum garnet (Nd:YAG) laser is a preferred device to reach the hair bulb and minimize unintentional damage to the epidermal basal layer, especially in individuals with darker skin. The Nd:YAG laser alone can be beneficial for recurrent lesions in Hurley stage I and II patients. For patients with more advanced disease (Hurley stage II/III), CO_2 laser vaporization and excision of sinus tracts is a more viable option for treatment success [2]. In one study, the ND:YAG laser was combined with CO_2 deroofing in four patients with refractory HS. All patients had complete clearance of lesions up to three years [1].

Laser hair reduction can be performed safely with few side effects, especially in trained hands. The most common side effects include hyperpigmentation, hypopigmentation, or lack of efficacy. Laser treatments are performed in an office-setting with no general anesthesia and hospitalization is not required. Patients having more invasive therapy such as CO_2 laser vaporization and excision are able to resume low exertional work within 4-5 days depending on disease severity [1].

Using the HS Lesion, Area and Severity Index Scale in evaluating outcomes, a randomized trial of twenty-two patients with Hurley II and III lesions treated with Nd:YAG laser showed a 65% decrease in disease severity in the inguinal and axillary region following three treatments performed a month apart [3]. Other hair reduction lasers such as the 800nm diode laser, intense pulsed light therapy, and non-Q switched

Table 1. *The average, high and low costs of laser hair reduction for different areas of the body according to DocShop [4].*

Area of Body	Low Cost	High Cost
Neck	$600	$900
Arms	$350	$500
Groin/ Bikini Area	$350	$500

ruby laser have been used with success in small case series for the treatment of HS [2].

Laser hair reduction costs vary depending on differing locations of the body (**Table 1**), [4]. This does not include related expenses such as prescription medications or consumables. Medical therapies for patients with severe HS are also expensive; every-other-week injections of adalimumab cost approximately $16,000 per year [6]. Prolonged antibiotic courses as an alternative for HS, such as with tetracycline or clindamycin, may lead to long-term consequences that can lead to drug-resistant bacteria and potential for microbiome alteration. Insurance coverage of lasers for dermatologic uses is not a new concept. Many insurers consider pulsed dye laser (i.e. VBeam) treatment medically necessary for infantile hemangiomas and will cover the charges pending a prior authorization [5]. In a healthcare system in which insurance companies are covering laser costs for vascular malformations, viral infections, ophthalmologic care, and various other conditions, patients with serious chronic inflammatory diseases affecting the skin should be provided coverage towards laser hair reduction. This is a medically necessary procedure for the treatment of HS and it should be considered part of the routine medical treatment options.

Potential conflicts of interest

RKS serves as a medical editor for LearnHealth and as a consultant for Burts Bees, Dermala, and Tomorrow's Leaf. The remaining authors have no conflicts of interest or financial disclosures to report.

References

1. Jain, V, Jain A. Use of Lasers for the Management of Refractory Cases of Hidradenitis Suppurativa and Pilonidal Sinus. *J Cutan Aesthet Surg*. 2012;5:190-192. [PMID: 23112515]
2. Hamzavi IH, Griffith JL, Riyaz F, Hessam S, Bechara FG.Laser and light-based treatment options for hidradenitis suppurativa. *J Am Acad Dermatology*. 2015;73:S78-81. [PMID: 26470622]
3. Tierney E, Mahmoud BH, Hexsel C, Ozog D, Hamzavi I. Randomized control trial for the treatment of hidradenitis suppurativa with a neodymium-doped yttrium aluminum garnet laser. *Dermatol Surg*. 2009;35:1188-98. [PMID:19438670]
4. DocShop. Laser Hair Removal Costs. Laser Hair Removal Costs. *DocShop*. September 6, 2017. https://www.docshop.com/education/dermatology/laser-hair-removal/cost. Accessed on January 18, 2020.
5. Aetna Better Health® of Pennsylvania. Pulsed Dye Laser Treatment. *Aetna Better Health*. June 9, 2016. https://www.aetnabetterhealth.com/pennsylvania/assets/pdf/pharmacy/pharmacy-bulletins/0559_Pulsed%20Dye%20Laser%20Treatment.pdf. Accessed on June 15, 2019.
6. Moul D., Korman N. Severe Hidradenitis Suppurativa Treated with Adalimumab. *JAMA Dermatology*. 2006;142:1110-1112. [DOI: 10.1001/archderm.142.9.1110].