# Medical Treatments of Hidradenitis Suppurativa

## More Options, Less Evidence

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**KEYWORDS**

• Hidradenitis suppurativa • Acne inversa • Treatment • Evidence

**KEY POINTS**

- Very few randomized, control trials are available for the treatment of hidradenitis suppurativa.
- Most therapies reviewed in this article have Category of Evidence IV and Strength of Recommendation D.
- Acitretin, zinc gluconate and metformin have a Category of Evidence III and Strength of Recommendation C.

## INTRODUCTION

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease characterized by painful recurrent nodules and abscesses that often rupture and lead to significant pain with the formation of sinus tracts and scarring. This common disorder (affecting approximately 1% of the population) can be psychologically debilitating and have a significant negative impact on the patient's quality of life.

With the recent publication of Guidelines for HS Treatment, produced by the European Dermatology Forum,[1] as well as recent evidence-based approach to the treatment of HS,[2] we can now develop a comprehensive, holistic, and rational approach to the treatment of this chronic, debilitating, devastating, recurrent inflammatory disorder of the skin. In this article, we review the evidence for many of the second and third line therapies for the treatment of HS. Because very few randomized, controlled trials are available for the treatment of HS, therapies presented are mainly based on case series and case reports. All the therapies reviewed in this article have Category of Evidence IV and Strength of Recommendation D with the exception of acitretin, zinc gluconate, and metformin, which have a Category of Evidence III and Strength of Recommendation C (**Table 1**).

## BIOLOGIC THERAPY

Ustekinumab a combined interleukin (IL)-12 and IL-23 inhibitor has also been used in the treatment of HS with a total of 3 case reports. Three patients showed a cumulative response rate of 33% with relapse noted after discontinuation of treatment in 2 of the 3 patients.[3] Recently, an open-label study of 17 patients has been reported and published in an abstract forum.[4] In this unpublished, open-label, prospective study, 35% of patients achieved a meaningful clinical response at week 40 (≥50% improvement in standardized clinical scores). This same study reported greater than 5-point decrease in Dermatology Life Quality Index in 47% of patients.[3] Evidence Category IV, Strength of Recommendation D (see **Table 1**).

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**Table 1**
**Table of evidence for nonrandomized, controlled trial tested treatment options for hidradenitis suppurativa**

| Therapy | Category of Evidence | Strength of Recommendation |
|---|---|---|
| Ustekinumab | IV | D |
| Steroids (intralesional/ systemic) | IV | D |
| Dapsone | IV | D |
| Cyclosporine | IV | D |
| Hormones | IV | D |
| Pain control and dressings | IV | D |
| Isotretinoin | IV | D |
| Acitretin | III | C |
| Alitretinoin | IV | D |
| Resorcinol | IV | D |
| Gamma-globulin | IV | D |
| Colchicine | IV | D |
| Metformin | III | C |
| Zinc gluconate | III | C |
| Botulinum toxin | IV | D |
| Fumarates | IV | D |
| Tacrolimus | IV | D |

## STEROIDS, INTRALESIONAL SYSTEMIC

The use of intralesional systemic corticosteroids is the mainstay of rescue therapy in the management of HS. Intralesional triamcinolone acetonide 5 to 10 mg/mL is widely used for the management of acute flares of single or limited number of abscesses.[5] This therapy may also be helpful for the treatment of recalcitrant nodules and sinus tracts.[5] Clinical response is usually rapid within 48 to 72 hours. Well-known adverse events of atrophy, pigmentary changes, and telangiectasia can been seen with intralesional corticosteroid use. This therapy is contraindicated if there is presence of cellulitis. At the recommended doses, systemic side effects are uncommon.[6] Complications are that of superinfection.[6] Evidence Category IV, Strength of Recommendation D (see **Table 1**).

## SYSTEMIC CORTICOSTEROIDS

In HS patients with significant flares, systemic corticosteroids may be used as rescue therapy. It is recommended that the dose and duration be minimized to limit the long-term complications of prolonged systemic steroid use. For acute flares, doses equivalent to 0.5 and 0.7 mg/kg of prednisolone may be useful. Therapy should be limited tapering occurring over a few weeks.[7] In addition to systemic steroids being useful for the control of acute flares, the occasional case report of sustained disease control up to 12 months.[7] Long-term treatment with systemic corticosteroids is not currently recommended because of the potential health risk of prolonged steroid use. Evidence Category IV, Strength of Recommendation D (see **Table 1**).

## DAPSONE

Dapsone is an antibiotic with marked antiinflammatory properties, especially in neutrophilic dermatosis. The use of dapsone in doses of 50 to 200 mg/d for 1 to 48 months has been reported in retrospective review of 24 patients.[8] Meaningful clinical improvement was observed in 38% of cases. Adverse events were not uncommon and led to withdrawal of therapy in 8%. Rapid relapse of the HS occurred in patients who discontinued therapy. A second but smaller retrospective study reported significant improvement in all 5 cases.[9] Evidence Category IV, Strength of Recommendation D (see **Table 1**).

## CYCLOSPORINE

Cyclosporine as monotherapy or in combination with corticosteroids has been reported in only 4 cases. Cyclosporine is a calcineurin inhibitor. It targets T lymphocytes. Doses range from 1 to 6 mg/kg/d. Patients reported to have moderate to sustained response with therapies lasting from 6 weeks to 4 months.[10–12] Because of the significant adverse event profile of cyclosporine, it is recommended that it be used by health care providers with both experience and knowledge in the use of cyclosporine. Evidence Category IV, Strength of Recommendation D (see **Table 1**).

## HORMONES

A number of hormone therapies have been reported. Antiandrogen, cyproterone acetate, and ethinyl estradiol have been noted in case series to show improvement in HS. Progesterone has been associated with both the onset of HS as well as worsening of preexisting disease. In a case series of 4 females with longstanding HS a combination of cyproterone acetate 100 mg/d and ethinyl estradiol had controlled the patients HS. Relapse was noted once the dose of cyproterone acetate was lowered to 50 mg/d.[13] Another case series involving females treated with 19 nortestosterone