Abstract
We present a case where etanercept—a soluble tumor necrosis factor receptor-Fc fusion protein—was safe and effective in treating the painful skin lesions of a 24-year-old patient with hidradenitis suppurativa, resulting in an improvement in quality of life.

Introduction
Hidradenitis suppurativa (HS), also referred to as acne inversa, is a common disorder characterized by occlusion of the pilosebaceous unit in intertriginous, apocrine-gland-bearing regions of the body, including axillary, inguinal, and anogenital areas, with a higher incidence among women and with the disease onset commonly occurring at 23 years of age. HS is a clinically diagnosed, chronic inflammatory disease that presents with boils, draining fistulas, abscesses, and scarred tracts at various stages of active and end-stage disease. The pain and visibility of HS-associated lesions are debilitating and may develop into squamous cell carcinoma.

Traditional treatments include oral and topical antibiotics, antimicrobial soaps, intralesional corticosteroid injections, and incision with drainage. Systemic therapies, including retinoids and immunosuppressives such as cyclosporine, are additional therapeutic options. This report describes the successful treatment of HS with the soluble tumor necrosis factor (TNF) receptor-Fc fusion protein etanercept combined with oral antibiotics. The patient demonstrated involvement in an amputation region not generally known to have apocrine glands, as well as axillary and inguinal areas, and had failed traditional therapy for HS.

Case Report
A 24-year-old Caucasian woman was referred to the dermatology department with recurring fluctuant boils and scarred fistulous tracts in her axillae and groin. In addition, she had similar lesions on the stump of her below the knee amputation, which was caused by an accident at the age of 4. She had experienced episodes since the age of 12. Previous treatment of her HS with minocycline at 100 mg 3 times daily provided minimal improvement. She denied a history of nodular acne or scalp boils as seen in the follicular occlusion triad. The pain, mental distress, and economic costs from repeated draining of abscesses and staining of her clothes severely diminished her quality of life.

To reduce the risk of dyspigmentation, minocycline was reduced to a total of 200 mg/day. A topical clindamycin 1% solution twice daily and an antibacterial hexachlorophene cleanser were administered. At her 6- and 12-week follow-ups, minimal change was noted with boils continuing to form.
in her axillae, thus requiring incision with drainage and intralesional corticosteroid injections.

Because of the refractory nature of her disease, 3 months after the patient first presented, etanercept 50 mg weekly was initiated as an adjunct to oral and topical antibiotics. Within one month of starting etanercept, improvement was observed with no new boils developing, including at her amputation stump. Subsequently, in an attempt to discontinue oral and topical antibiotics, a flare resulted with a fresh axillary boil. While maintaining etanercept treatment, minocycline 100 mg/day and clindamycin 1% solution were restarted, and her disease was again well-controlled within one month. The patient remained disease-free for the next 10 months while receiving uninterrupted treatment with etanercept and antibiotics. Subsequently, after missing 2 months of etanercept treatment because of insurance-related matters, a flare occurred despite continuing the oral and topical antibiotics (Figure 1A). This recrudescence required repeated intralesional corticosteroid injections into newly-developed axillary and stump boils and in the area below her knee amputation. However, after restarting etanercept at 50 mg weekly, her disease was again well-controlled (Figure 1B). She has since remained disease-free for 6 months while receiving etanercept, oral minocycline, and topical clindamycin. There have been no reported adverse events.

Discussion
Although no evidence supports an infectious etiology in HS, the mainstay treatments are oral and topical antibiotics. Additionally, the response of HS to systemic corticosteroids underscores its inflammatory pathogenesis. Also, the anti-inflammatory actions of antibiotics may be responsible for successfully treating HS.

Histologic evaluation of HS can demonstrate granulomas; however, HS is not considered a primary granulomatous disease. TNF is a proinflammatory cytokine found within and around granulomas in HS tissues. Previously, case reports have described the use of the anti-TNF monoclonal antibody infliximab for HS. Etanercept, a soluble TNF receptor-Fc fusion protein, has been effective for HS in one case report.

This patient’s HS is of interest since it involves an amputation stump at a location not known to have apocrine glands. This patient’s HS is of interest since it involves an amputation stump at a location not known to have apocrine glands. The stump may have become functionally intertriginous because of the occlusion of the prosthesis.

In 2 separate flare episodes of new lesions, etanercept treatment in combination with antibiotics improved the patient’s HS. Importantly, in the second flare episode, despite the maintenance of oral antibiotics, discontinuation of etanercept resulted in a disease flare, which highlights the benefits of etanercept therapy for the management of HS. The use of etanercept, combined with oral antibiotics, demonstrates another therapeutic option for the treatment of severe refractory atypical HS.

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Disclosure
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References

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