Generalized Essential Telangiectasia Treated With Pulsed Dye Laser

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PRACTICE **POINTS**

- Generalized essential telangiectasia (GET) is a primary benign skin condition in which there is progressive development of telangiectases but a lack of systemic symptoms.
- Although patients should be assured that GET is a benign disease, its manifestation on the skin may cause negative psychologic impacts that should not be overlooked.
- Pulsed dye laser therapy does lead to improvement of the condition, but it does not prevent progression.

To the Editor:

Generalized essential telangiectasia (GET) is a rare, benign, and progressive primary cutaneous disease manifesting as telangiectases of the skin without systemic symptoms. It is unique in that it has widespread distribution on the body. Generalized essential telangiectasia more commonly affects women, usually in the fourth decade of life. The telangiectases most frequently appear on the legs, advancing over time to involve the trunk and arms and presenting in several patterns, including diffuse, macular, plaquelike, discrete, or confluent. Although GET typically is asymptomatic, numbness, tingling, and burning of the involved areas have been reported.[1] Treatment modalities for GET vary, though pulsed dye laser (PDL) therapy is most common. We report the case of a 40-year-old woman with a 5-year history of GET who was treated successfully with PDL.

A 40-year-old woman presented to our dermatology clinic with progressive prominence of blood vessels involving the dorsal aspects of the feet of 5 years' duration. The prominent vessels had spread to involve the legs (Figure 1), buttocks, lower abdomen, forearms, and medial upper arms. The patient denied any personal history of bleeding disorders or family history of inherited conditions associated with visceral vascular malformations, such as hereditary hemorrhagic telangiectasia. Notably, magnetic resonance imaging of the liver approximately 3 weeks prior to initiating treatment with PDL demonstrated multiple hepatic lesions consistent with hemangiomas. The patient reported an occasional tingling sensation in the feet. She was otherwise asymptomatic but did report psychological distress associated with the skin changes.

Punch biopsies from the right lower leg and right buttock demonstrated increased vascularity of the dermis, a mild superficial perivascular lymphocytic infiltrate, and mild edema of the upper dermis without evidence of vasculitis. Autoimmune and coagulopathy workups were negative. The clinical and pathological findings were most consistent with GET.

Over the next 2.5 years, the patient underwent treatment with doxycycline and a series of 16 treatments with PDL (fluence, 6–12 J/cm^2; pulse width, 10 milliseconds) with a positive cosmetic response. Considerable improvement in the lower legs was noted after 2 years of treatment with PDL (Figure 2).

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The authors report no conflict of interest.

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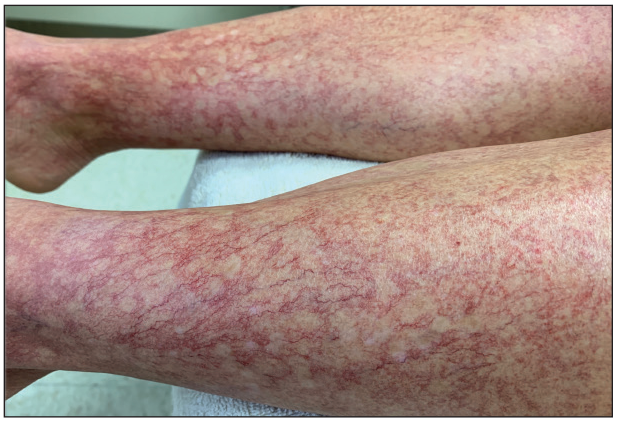

FIGURE 1. Erythematous to purpuric telangiectases on the lower legs of a 40-year-old woman with generalized essential telangiectasia prior to starting pulsed dye laser therapy.

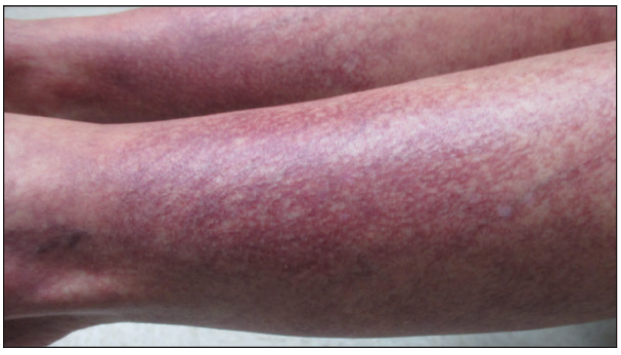

FIGURE 2. The patient's condition improved considerably, albeit transiently, after 2 years of pulsed dye laser therapy (fluence, 6–12 J/cm^2; pulse width, 10 milliseconds).

Recurrence of GET was noted between PDL treatments, which led to progression of the disease process; all treated sites showed slow recurrence of lesions within several months after treatment. After 2 years, doxycycline was discontinued because of a perceived lack of continued benefit and the patient's desire for alternative therapy. She was started on a 3-month trial of supplementation with ascorbic acid and rutin (or rutoside, a bioflavinoid), without noticeable improvement.

The diffuse distribution of dramatic telangiectases in GET makes treatment difficult. Standard treatments are not well established or studied due to the rarity of the condition. A review of PubMed articles indexed for MEDLINE using the terms *treatment* and *generalized essential telangiectasias* demonstrated several attempted treatment modalities for GET with varying success. In 4 cases in which PDL was used,[2-5] a positive cosmetic response was noted, similar to what was seen in our patient. In 1 of the 4 cases, conservative management with ascorbic acid and compression stockings was unsuccessful; however, 6-mercaptopurine, used to treat that patient's ulcerative colitis, incidentally resulted in resolution of GET.[2] In 2 cases, response was maintained at 1.5-year follow-up.[3,5] Two cases noted successful treatment with acyclovir,[6,7] and 2 more demonstrated successful treatment with systemic ketoconazole.[6,8] Some improvement was reported with oral doxycycline or tetracycline in 2 cases.[9,10] Sclerotherapy improved the cosmetic appearance of telangiectases in one patient but was unsustainable because of the pain associated with the procedure.[11] Nd:YAG laser therapy was effective in one case[12]; however, the patient experienced relapse at 6-month follow-up—similar to what we observed in our patient. Three patients treated with intense pulsed light therapy experienced results that were maintained at 2-year follow-up.[13]

Generalized essential telangiectasia generally is considered a skin-limited disease without systemic manifestations, but 2 reports[11,14] described its association with gastric antral vascular ectasia—known as watermelon stomach. Hepatic hemangiomas are the most common benign liver lesions; however, the findings on magnetic resonance imaging in our patient, in combination with the 2 reported cases of watermelon stomach, suggest that the vascular changes of GET might extend below the skin.

Of the cases we reviewed, our patient had the longest reported duration of PDL treatment and follow-up for GET in which a successful, albeit transient, response was demonstrated. Our review of the literature revealed other reports of success with PDL and intense pulsed light therapy; results were maintained in some patients, while disease relapsed in others. Further studies are needed to understand why results are maintained in some but not all patients.

Although the cost of PDL as a cosmetic procedure must be taken into consideration when planning treatment of GET, we conclude that it is a safe option that can be effective until other treatment options are established to control the disease.

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