histopathologic findings and localization of organisms in this case proves once again that syphilis continues to be "The Great Mimicker."

Adrienne C. Jordan, MD,^a Stephen E. Mercer, MD, PhD,^a Barry D. Goldman, MD,^b and Patrick O. Emanuel, MBChB^{a,c}

Division of Dermatopathology, Mount Sinai School of Medicine,^a Department of Dermatology, New York Downtown Hospital,^b New York, New York, and Diagnostic Medlab, Auckland, New Zealand^c

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Reprints requests: Patrick O. Emanuel, MBChB, Diagnostic Medlab, 10 Harrison Road, Mount Wellington, Auckland, New Zealand.

E-mail: paddyemanuel@gmail.com

REFERENCES

- Quatresooz P, Pierard GE. Skin homing of Treponema pallidum in early syphilis: an immunohistochemical study. Appl Immunohistochem Mol Morphol 2009;17:47-50.
- Phelps RG, Knispel J, Tu ES, Cernainu G, Saruk M. Immunoperoxidase technique for detecting spirochetes in tissue sections: comparison with other methods. Int J Dermatol 2000;39: 609-13
- 3. Jeerapaet P, Ackerman AB. Histologic patterns of secondary syphilis. Arch Dermatol 1973;107:373-7.
- 4. Buffet M, Grange PA, Gerhardt P, Carlotti A, Calvez V, Bianchi A, et al. Diagnosing Treponema pallidum in secondary syphilis by PCR and immunohistochemistry. J Invest Dermatol 2007;127: 2345-50.
- Wenhai L, Jianzhong Z, Cao Y. Detection of Treponema pallidum in skin lesions of secondary syphilis and characterization of the inflammatory infiltrate. Dermatology 2004;208: 94-97.

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Angioedema-type swelling and herpes simplex virus reactivation following hyaluronic acid injection for lip augmentation

To the Editor: Restylane (Medicis Aesthetics Inc, Scottsdale, AZ) is a hyaluronic acid (HA) dermal filler used for soft-tissue augmentation. It is a nonanimal-derived synthetic agent composed of 300- μ m HA particles, cross-linked by ether bonds. HA is a glycosaminoglycan distributed throughout connective, neural, and epithelial tissue. It serves as the viscoelastic network for collagen and elastin fiber binding and provides cell anchor point. Because HA is identical in all mammal species, the risk of hypersensitivity is remote. Although adverse reactions can occur with HA derivatives, these are rare. 1



Fig 1. Angioedema-type swelling 12 hours after injection of hyaluronic acid (Restylane-Medicis Aesthetics) into lips.



Fig 2. Monomorphous vesicles and crusted papules with collarettes of scale localized to vermilion border of lips 3 days after hyaluronic acid (Restylane-Medicis Aesthetics) injection.

We report one patient with erythema and angioedema-like swelling of the vermilion and cutaneous lips (Fig 1) within 12 hours after Restylane lip injection (Medicis Aesthetics). The procedure was performed by the patient's Columbian physician friend in a medical office in the United States. The patient's story was substantiated by the Restylane package and insert (Medicis Aesthetics). She reported tingling and pain that preceded the swelling by several hours. She presented to the emergency department where she received an intravenous methylprednisolone dose. Three days later, she returned to the emergency department with worsening pain, swelling, serosanguineous discharge, and crusting of the vermilion lips (Fig 2). Dermatology was consulted. She had profound edema of the cutaneous and vermilion lips (worse on the upper) with multiple monomorphous vesicles and crusted papules localized to the vermilion lips. Because of our suspicion of herpes simplex virus (HSV) reactivation, we obtained a swab of the discharge fluid for bacterial and viral culture and prescribed oral valacyclovir at 500 mg, by mouth, twice a day for 7 days with a prednisone taper—60 mg decreased by 10 mg daily for 6 days. Culture proved positive for HSV. We suspected that at least a portion of her edema was a result of HSV reactivation, but also considered hypersensitivity reaction to HA filler. The patient was referred to a cosmetic dermatologist for consideration of hyaluronidase injection. The patient was subsequently lost to follow-up.

HA injection is regarded as a noninvasive and effective procedure for soft-tissue augmentation because adverse events are rare. Predictable adverse reactions include erythema, purpura, and swelling limited to the injection site. Other injection-specific adverse outcomes include bluish Tyndall effect that represents visible HA seen through the epidermis and palpable nodules that occur with depot injection. Injection-nonspecific reactions previously described include immune-mediated angioedema, and immediate and delayed-type hypersensitivity reactions. Such reactions are characterized by persistent, nonpitting edema near the injection ranging from 10 minutes to 3 weeks depending on the pathogenesis.

Although HSV infection is stated as a potential complication, we know of no reports in the literature of secondary HSV reactivation. Invasive events are known to cause virus reactivation after previous infection. Because of the widespread prevalence of HSV, patients may benefit from pretreatment with suppressive antivirals. With respect to the patient's profound swelling, angioedema-type reactions have been described; may be related to HA interaction with a cell surface receptor, CD 44, on mast cells; and improve with intramuscular dexamethasone injection. As the popularity and ease of use of nonsurgical dermal fillers advances, so does the occurrence of injection-specific and injection-nonspecific adverse reactions.

Alexis L. Dougherty, MD,^a Rashid M. Rashid, MD, PhD,^b and Carolyn A. Bangert, MD^b

Departments of Dermatology at Texas Tech Health Science Center, Lubbock,^a and University of Texas Health Science Center, Houston^b

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Correspondence to: Alexis L. Dougherty, MD, 5710 4th St, Lubbock, TX 79416

E-mail: alexis.dougherty4@gmail.com

REFERENCES

- Dover JS, Carruthers A, Carruthers J, Alam M. Clinical use of Restylane. Skin Therapy Lett 2005;10:5-7.
- Leonhardt JM, Lawrence N, Narins RS. Angioedema acute hypersensitivity reaction to injectable hyaluronic acid. Dermatol Surg 2005;31:577-9.
- 3. Bellman B. Immediate and delayed hypersensitivity reactions to Restylane. Aesthetic Surg J 2005;25:489-91.
- Food and Drug Administration. Restylane: approved labeling. Available from: http://www.fda.gov/cdrh. Accessed on February 22, 2004.
- Fatahzadeh M, Schwartz RA. Human herpes simplex virus infections: epidemiology, pathogenesis, symptomatology, diagnosis, and management. J Am Acad Dermatol 2007;57:737-63.
- Fukui M, Whittlesey K, Metcalfe DD, Dastych J. Human mast cells express the hyaluronic-acid-binding isoform of CD44 and adhere to hyaluronic acid. J Clin Immunol 2000;94:173-8.

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Erythema gyratum repens without associated malignancy

To the Editor: A 48-year-old white man presented with a 10-month history of an intensely pruritic annular scaling eruption covering his scalp, trunk, and extremities. Lesions first appeared on his abdomen and spread within 2 weeks, covering most of his body surface area. Before presentation he had received treatment for presumed psoriasis with midpotency topical corticosteroids and psoralen plus ultraviolet A therapy without resolution of symptoms. The pruritus was unresponsive to antihistamines. There was no history of treatment with retinoids.

Physical examination revealed a well-appearing man with erythematous, scaling plaques arranged in concentric swirls involving 75% of the total body surface area (Fig 1). White scale bordered many of the plaques (Fig 2). The face, oral mucosa, conjunctivae, acral surfaces, nails, and genitalia were normal. There was no clinically appreciable lymphadenopathy. A full review of systems revealed negative findings. His medical history disclosed type 2 diabetes mellitus and coronary artery disease. His family history disclosed unspecified maternal lung and brain cancers. Biopsy specimen revealed a hyperkeratotic and acanthotic epidermis with parakeratosis and underlying mild perivascular lymphocytic infiltrate. Computed tomography scan showed moderate axillary, mediastinal, and groin adenopathy. Inguinal lymph node biopsy specimen demonstrated no evidence of malignancy, fungi, acid-fast bacilli, or clonal immunoglobin gene rearrangement.

The patient was treated with triamcinolone ointment 0.1% twice daily. His examination at 6 weeks demonstrated near total resolution of lesions. Mild erythema with slight scale remained, involving 5% of the body surface area, with no visible concentric