Dermatologic Therapy, Vol. 26, 2013, 373–376
Printed in the United States · All rights reserved

DERMATOLOGIC THERAPY
ISSN 1396-0296

THERAPEUTIC HOTLINE

Jessner–Kanof disease: two effective and sure therapeutic options

Rossana Conti*, Andrea Bassi*, Elisa Lorenzoni*, Nicola Bruscino*, Cristian Scatena†, Paolo Bonan*, Giovanni Cannarozzo*, Silvia Moretti* & Piero Campolmi*
**Department of Critical Care Medicine and Surgery, Division of Dermatology, †Division of Pathological Anatomy, University of Florence, Florence, Italy*

ABSTRACT: Jassner–Kanof disease is a benign cutaneous disorder clinically characterized by recurrent asymptomatic erythematous papules and plaques sometimes grouped with an arciform disposition on the face, neck, and back. We describe a case of Jassner–Kanof disease resistant to conventional therapy, in which the lesions located on the arms were treated with 595 nm pulsed dye laser, and those on the trunk underwent a treatment with tacrolimus 0.03% ointment. We have compared the results and the potential side effects with the two treatments, and after 1 year of follow-up, no recurrence of cutaneous lesions were observed.

KEYWORDS: Jassner–Kanof disease, pulsed dye laser, topical calcineurin inhibitors

Introduction

The lymphocytic infiltration first described by Jessner and Kanof in 1953 is supposed to be a variant within the spectrum of cutaneous T cell pseudolymphoma (1).

Jassner–Kanof disease (JKD) is a benign cutaneous disorder clinically characterized by recurrent asymptomatic erythematous papules and plaques sometimes grouped with an arciform disposition. The lesions frequently clear centrally, and are most often located on the head, neck, and upper trunk of middle-aged men with no further scarring. The disease has a prolonged course characterized by remissions and relapses, and it may persist for several months or even years.

Current treatments include corticosteroids and thalidomide with often inconsistent and transitory response. The present authors herein discuss a case of JKD resistant to conventional therapy, in which a portion of the lesions were treated with pulsed dye laser and the other with topical calcineurin inhibitors. So far, few authors have reported the dye laser treatment and the topical calcineurin inhibitors treatment as single therapeutic option.

Address correspondence and reprint requests to: Andrea Bassi, MD, Department of Critical Care Medicine and Surgery, Division of Dermatology, Piazza dell'Indipendenza, 11, 50129 Florence, Italy, or email: bassi76@interfree.it.
Funding/Support: None reported.
Conflicts of Interest: None reported.
Financial Disclosure: None reported.

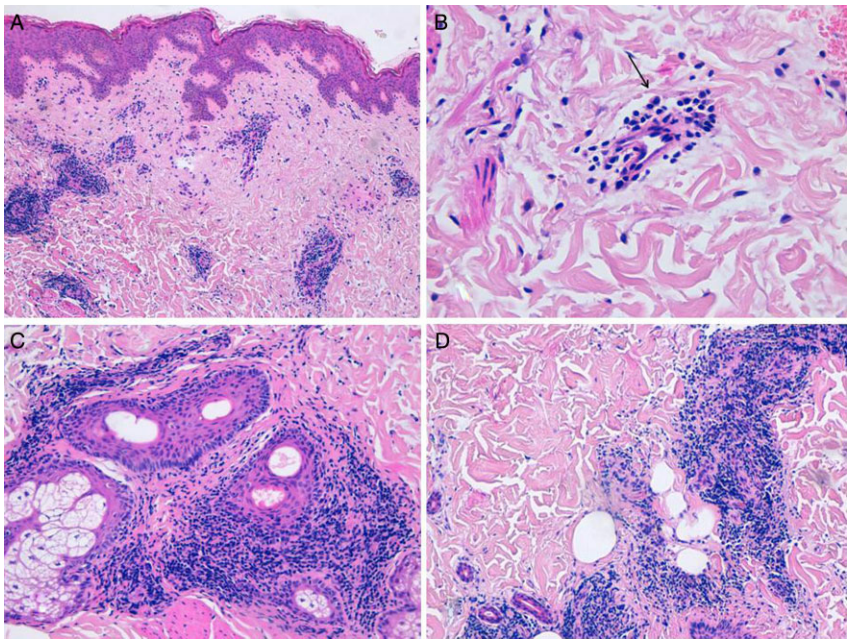

FIG. 1. A moderately dense perivascular infiltrate involves the superficial (A; hematoxylin and eosin stain, original magnification ×10) and deep dermis (B; hematoxylin and eosin stain, original magnification ×10) with typical extension to pilosebaceous units (C; hematoxylin and eosin stain, original magnification ×20). The infiltrate is consistent with lymphocytes of small size with scattered plasma cells (D, arrow; hematoxylin and eosin stain, original magnification ×40).

Case report

A 47-year-old Caucasian woman presented with a 6-year history of erythematous lesions, with an arciform disposition, asymptomatic, located on the upper trunk and the arms, rapidly enlarging. Familiar and personal history was negative for other dermatological and internistic diseases. Skin biopsy revealed a moderately dense perivascular infiltrate involving the superficial and deep vascular plexus as well as infiltrates surrounding pilosebaceous units. The component cells were predominantly small lymphocytes with scattered plasma cells. The epidermis appeared normal with no evidence of atrophy, significant basal vacuolar change, or follicular plugging (FIG. 1).

The pathological findings were consistent with the clinical diagnosis of JKD.

The patient was firstly treated with corticosteroids (prednisone at a starting dose of 25 mg, for 3 weeks) without a clinical response.

Because of the effectiveness shown by these therapeutic options in some previous articles, the present authors decided to employ these therapies comparing the results and the potential side effects in the same patient. The lesions located on the arms were therefore treated with 595-nm pulsed dye laser Dermobeam (manufactured by Deka MELA, Calenzano, Italy), spot size 10 mm, (fluence 6.5 J/cm^2, with pulse duration of 0.5–1.5 ms). After two applications, a month apart from each other, the lesions disappeared with only a temporary, about 10 days, hyperpigmentation phase (FIG. 2). For the lesions located on the trunk, a topical treatment with tacrolimus 0.03% ointment (Protopic®, Astellas Pharma Spa) was initiated twice a day. In the following 3 weeks, the lesions of the trunk disappeared and the patient developed only a moderate burning sensation and pruritus at the site of application, frequently associated with topical tacrolimus therapy (FIG. 3). We continued the use of tacrolimus for a further month to avoid immediate relapses of the lesions. During each treatment and at 1 year of follow-up, no recurrence of cutaneous lesions was observed.

Discussion

JKD is a very rare condition, and it is sometimes difficult to distinguish JKD from other skin diseases with a similar clinical appearance like pseudolymphoma, a particular variant of lupus erythematosus (tumid LE), polymorphic light eruption, and borreliosis. The latter was excluded by serology as well as the negativity of direct immunofluorescence ruled out lupus erythematosus tumidus. Moreover, polymorphic light eruption was excluded by provocative phototesting.

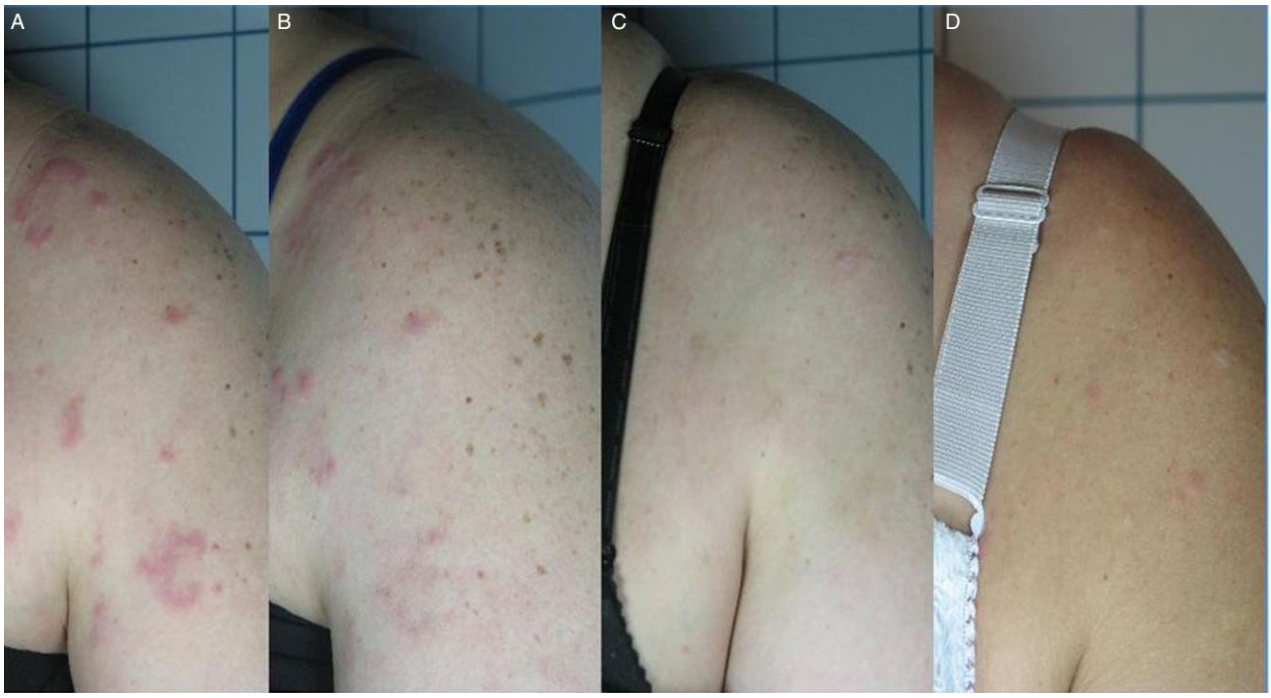

FIG. 2. **Lesions located on the trunk before (A) and after 3 weeks (B) of treatment with topical treatment with tacrolimus 0.03% ointment.**

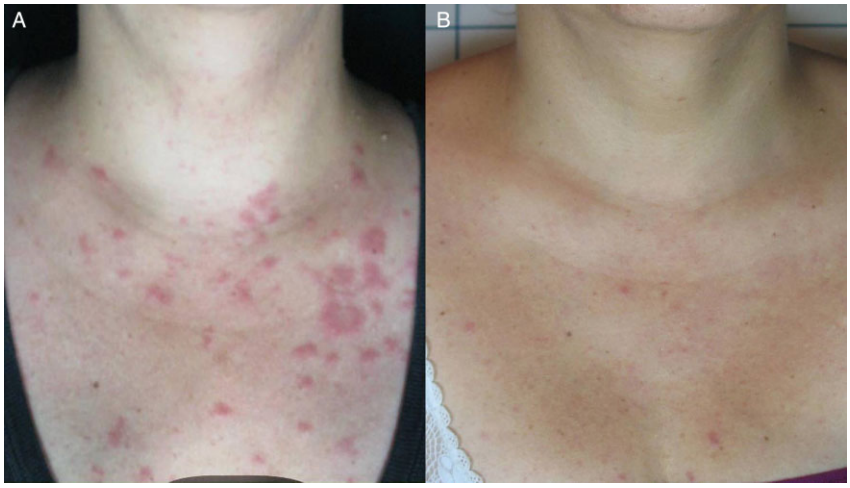

FIG. 3. **Lesions located on the arms before (A), after 2 weeks (B), 1 month (C), and 1 year (D) of treatment with 595 nm pulsed dye laser.**

The etiology of the disease is unknown. Borrelia burgdorferi infection has been reported to be associated with JKD (2). Medications have also been reported to cause lymphocytic infiltration of the skin, JKD. Nolden et al. reported that glatiramer acetate, an immunomodulatory drug, caused a lymphocytic infiltration (T cell pseudolymphoma) (3).

Treatment for JKD is usually unsatisfactory: current treatment options include topical and systemic drugs, as corticosteroids and thalidomide, or other immunosuppressive agents.

Only two cases of JKD treated by pulsed dye laser have been reported (4,5). It is based on the selective photothermolysis ablation of the dilated capillaries responsible for the telangiectasias and persistent erythema, using wavelengths in the visible light spectrum (5).

Treatment of JKD with topical calcineurin inhibitors has been described in literature (6), as

topical calcineurin inhibitors have shown their effectiveness through inhibiting T cell activation by blocking the action of calcineurin.

Pulsed dye laser and topical calcineurin inhibitors appeared to be an effective and sure treatments for JKD, and should not be forgotten in patients that show no spontaneous remission or either a failure or contraindications to steroids and other traditional treatments. These therapeutic options do not show any relevant side effects, ensuring the same clinical results, even if laser therapy enables us to achieve the same results faster than topical therapy with less stress on the patient with a better cost–benefit ratio.

Actually, other several studies are required to confirm the present authors' first interesting data as regards the best therapeutic option to this particular condition.

References

1. Jessner M, Kanof B. Lymphocytic infiltration of the skin. Arch Dermatol 1953: **68**: 447–479.
2. Ziemer M, Eisendle K, Müller H, Zelger B. Lymphocytic infiltration of the skin (Jessner-Kanof) but not reticular erythematous mucinosis occasionally represents clinical manifestations of Borrelia-associated pseudolymphoma. Br J Dermatol 2009: **161** (3): 583–590.
3. Nolden S, Casper C, Kuhn A, Petereit HF. Jessner-Kanof lymphocytic infiltration of the skin associated with glatiramer acetate. Mult Scler 2005: **11** (2): 245–248.
4. Michel JL, Perrin D. Pulsed dye laser treatment for Jessner's lymphocytic infiltration of the skin. Ann Dermatol Venereol 2010: **137** (12): 803–807.
5. Borges da Costa J, Boixeda P, Moreno C. Pulsed-dye laser treatment of Jessner lymphocytic infiltration of the skin. J Eur Acad Dermatol Venereol 2009: **23** (5): 595–596.
6. Tzung TY, Wu JC. Topical calcineurin inhibitors in treating Jenssner's lymphocytic infiltration of the skin: report a case. Br J Dermatol 2005: **152** (2): 383–384.