

excising an additional layer after obtaining a tumor-free result.¹⁰ Comparing the 2 techniques, no local recurrences have been detected in the few cases treated by Mohs micrographic surgery, whereas recurrence rates of up to 70% have been reported after wide surgical excision,⁹ although the follow-up periods have been short. With respect to adjuvant treatment, these tumors have been shown to respond poorly to radiation therapy⁴ and chemotherapy. Adjuvant radiation therapy has not been shown to increase survival.

In conclusion, EDC is probably a less aggressive tumor than has been thought, but local recurrence is common. The squamous variant appears to be more common than has been reported in the literature and is probably underdiagnosed. In our opinion, Mohs micrographic surgery is a good therapeutic option for EDC, but diagnostic-therapeutic algorithms still need to be developed.

References

1. Clark S, Young A, Piatigorsky E, Ravitskiy L. Mohs micrographic surgery in the setting of squamoid eccrine ductal carcinoma: Addressing a diagnostic and therapeutic challenge. *J Clin Aesthet Dermatol.* 2013;6:33–6.
2. Terushkin BS, Leffell DJ, Futoryan T. Squamoid eccrine ductal carcinoma: a case report and review of the literature. *Am J Dermatopathol.* 2010;32:287–92.
3. Santa Cruz DJ. Sweat gland carcinomas: A comprehensive review. *Semin Diagn Pathol.* 1987;4:38.
4. Avraham JB, Villines D, Maker VK, August C, Maker AV. Survival after resection of cutaneous adnexal carcinomas with eccrine differentiation: Risk factors and trends in outcomes. *J Surg Oncol.* 2013;108:57–62.
5. Wick MR, Swanson PE. Cutaneous adnexal tumors. In: *A guide to pathological diagnosis.* Chicago: American Society of Clinical Pathologists; 1991. p. 10.
6. Chhibber V, Lyle S, Mahalingam M. Ductal eccrine carcinoma with squamous differentiation: Apropos a case. *J Cutan Pathol.* 2007;34:503–7.
7. Kim YJ, Kim AR, Yu DS. Mohs micrographic surgery for squamoid eccrine ductal carcinoma. *Dermatol Surg.* 2005;31:1462–2146.
8. Cassarino DS, DeRienzo DP, Barr RJ. Cutaneous squamous cell carcinoma: A comprehensive clinicopathologic classification. *J Cutan Pathol.* 2006;33:191–206, 261–279.
9. Wildemore JK, Lee JB, Humphreys TR. Mohs surgery for malignant eccrine neoplasms. *Dermatol Surg.* 2004;30:1574–9.
10. Dzubow LM, Grossman DJ, Johnson B. Eccrine adenocarcinoma—report of a case, treatment with Mohs surgery. *J Dermatol Surg Oncol.* 1986;12:1049–53.

M. Lorente-Luna,^{a,*} E. Jiménez Blázquez,^b
C. Sánchez Herreros,^b J. Cuevas Santos^c

^a Servicio de Dermatología, Hospital Central de la Defensa Gómez-Ulla, Madrid, Spain

^b Servicio de Dermatología, Hospital Universitario de Guadalajara, Guadalajara, Spain

^c Servicio de Anatomía Patológica, Hospital Universitario de Guadalajara, Guadalajara, Spain

* Corresponding author.

E-mail address: m.lorente.luna@gmail.com

(M. Lorente-Luna).

2 December 2014 25 March 2015

Allergic Contact Dermatitis Due to *Dittrichia viscosa*[☆]



Dermatitis alérgica de contacto por *Dittrichia viscosa*

To the Editor:

Plant-induced allergic contact dermatitis (ACD) is a common disorder that can arise in numerous situations and places during daily life.¹ Diagnosis is often challenging due to our lack of experience in its management.

We present the case of a 51-year-old woman with a long-standing history of rheumatoid arthritis on treatment with leflunomide. She consulted for an outbreak of pruritic lesions that had arisen 2 days earlier on her hands. Two weeks earlier she had developed lesions of similar characteristics that had resolved within a few days, after the application of topical corticosteroids. She stated that for the previous 2 months she had been applying an infusion of a plant called yellow fleabane (also known as sticky fleabane or false yellowhead) (Fig. 1) once a week to her

hands to control pain. She prepared the infusion at home. Examination revealed multiple vesiculobullous lesions with a blood-stained content on a background of normal skin on the dorsum, palms, and fingers of both hands; in addition, she had desquamating erythematous plaques on both wrists (Fig. 2). Treatment with oral and topical corticosteroids and discontinuation of the application of the infusion led to complete resolution of the lesions and there have been no recurrences. The unknown irritant capacity of the plant led us to perform semi-open patch testing, applying fragments of the plant (stem, leaf, and flower) to the patient's forearm, covering the samples with porous tape and removing them after an hour. At 48 hours, 2+ positive reactions were observed in the area of application of the leaf and stalk, with reactivation of the lesions previously present on the hands; these manifestations started to appear 24 hours after performing the test. Control tests were performed on 10 healthy patients using the same technique with dry leaves and stalks, with negative results. Patch testing was also performed with the standard series of the Spanish Contact Dermatitis and Skin Allergy Research Group (GEIDAC), the Martitor plant series, and the infusion of yellow fleabane in water. A 2+ positive reaction to the infusion of the plant was observed at 48 and 96 hours. All patch testing was performed in accordance with the criteria of the International Contact Dermatitis Research Group.

[☆] Please cite this article as: Calderón-Komáromy A, Puente-Pablo N, Córdoba S, Borbujo J. Dermatitis alérgica de contacto por *Dittrichia viscosa*. *Actas Dermosifiliogr.* 2016;107:77–79.



Figure 1 Dry yellow fleabane (*Dittrichia viscosa*) provided by the patient.

Yellow fleabane—scientific name *Dittrichia viscosa*, a plant species of the *Asteraceae/Compositae* family—is an aromatic Mediterranean shrub. This plant is widely used in homeopathy for its medicinal properties as it contains

biologically active substances that act as modifiers of the inflammatory response,² though they also have allergenic potential. These substances are the sesquiterpenic lactones (SL), a group of metabolites found in the oil-resins released from the leaves, flower stalk, and possibly from the pollen.³ There are around 1350 identified varieties of SLs and approximately 50% of them have allergenic potential.⁴ Although the concentration of SLs varies between plant species, small similarities in their molecular structure can give rise to crossreactions.⁵ Identical SLs from different plant species can be responsible for false crossreactions. This situation, together with the few standardized tests for the study of this pathology, makes it difficult to study plant-induced ACD. Two preparations are available for patch testing. The "SL mix", which contains 3 forms representative of the 3 main structural groups,⁶ only enables us to identify 60% of cases of SL sensitization. An alternative preparation for diagnosis is the "Compositae mix", based on a mixture of multiple plant extracts; this has a considerably higher sensitivity (85%)



Figure 2 Vesiculobullous lesions with a bloodstained content on the dorsum and palms of the hands, with some areas of erosion and desquamating erythematous plaques on the wrists.

than can be achieved with SL mix, although specificity is low.⁷

Ten cases of *D. viscosa*-induced ACD have been published. As in our case, those reports described positive patch testing to fragments of the plant. Additionally, positive reactions to extracts from other plant and to substances included in the perfumes series were observed in some cases, which supports the high probability of crossreactions.^{8,9} Negative patch testing to SLs, as in our case, does not exclude the diagnosis because of the test's low sensitivity.

The study of plant-induced ACD is a significant challenge, mainly because the majority of patients do not identify the specific trigger. This is further complicated by the high probability of crossreactions with substances obtained from other plants and the low specificity of standardized tests. The specific substance to which the patient has been exposed, if it can be identified, must be included in the study, avoiding tests with fresh plants or plant extracts due to the high risk of irritation or sensitization.⁹ We also draw attention to the importance of studying healthy controls using the same techniques, in order to classify the type of reaction as allergic or irritant.

This case highlights the need for dermatologists to recognize this type of reaction and the difficulties that can arise during its investigation.

References

1. Rozas-Muñoz E, Lepoittevin JP, Pujol RM, Giménez-Arnau A. Allergic contact dermatitis to plants: Understanding the chemistry will help our diagnostic approach. *Actas Dermosifiliogr.* 2012;103:456–77.
2. Chadwick M, Trewin H, Gawthrop F, Wagstaff C. Sesquiterpenoids lactones: Benefits to plants and people. *Int J Mol Sci.* 2013;14:12780–805.
3. Amorim MH, Gil da Costa RM, Lopes C, Bastos MM. Sesquiterpene lactones: Adverse health effects and toxicity mechanism. *Crit Rev Toxicol.* 2013;43:559–79.
4. Mensing H, Kimmig W, Hausen BM. Airborne contact dermatitis. *Hautart.* 1985;36:398–402.
5. Salapovic H, Geier J, Reznicek G. Quantification of sesquiterpene lactones in Asteraceae plant extracts: Evaluation of their allergenic potential. *Sci Pharm.* 2013;81:807–18.
6. Ducombs G, Benezra C, Talaga P, Andersen KE, Burrows D, Camarasa JG, et al. Patch testing with the sesquiterpene lactone mix: A marker for contact allergy to Compositae and other sesquiterpene-lactone-containing plants. A multicentre study of the EECDRG. *Contact Dermatitis.* 1990;22:249–52.
7. Shum KW, English JS. Allergic contact dermatitis in food handlers, with patch test positive with Compositae mix but negative to sesquiterpene lactone mix. *Contact Dermatitis.* 1998;39:207–8.
8. Gonçalves M, Gonçalves S. Allergic contact dermatitis from *Dittricia viscosa* (L.) Greuter. *Contact Dermatitis.* 1991;24:40–4.
9. Estrela F, Tapadinhas C, Pereira F. Allergic contact dermatitis from *Dittrichia viscosa* (L.) Greuter. *Contact Dermatitis.* 1995;32:108–9.

A. Calderón-Komáromy,* N. Puente-Pablo, S. Córdoba, J. Borbujo

Servicio de Dermatología, Hospital Universitario de Fuenlabrada, Madrid, Spain

* Corresponding author.

E-mail address: komaromy20@hotmail.com

(A. Calderón-Komáromy).

Interaction between *Pseudomonas aeruginosa* and Dermatophyte Fungi: Repercussions on the Clinical Course and Microbiological Diagnosis of Tinea Pedis[☆]



Interacción de *Pseudomonas aeruginosa* y hongos dermatofitos: repercusión en el curso clínico y en el diagnóstico microbiológico de la tinea pedis

To the Editor:

Simultaneous skin infection by *Pseudomonas* and fungi is underdiagnosed. In the context of a complex case of this pathology, we reflect on the interaction between these 2

infectious agents, the mutual influences they exert, and how this circumstance can affect the clinical course and microbiological diagnosis.

We present the case of a 55-year-old man who consulted for cellulitis of the right lower limb with marked



Figure 1 Intense erythema and maceration, with peripheral peeling in the fourth interdigital space.

[☆] Please cite this article as: Aspiroz C, Toyas C, Robres P, Gilaberte Y. Interacción de *Pseudomonas aeruginosa* y hongos dermatofitos: repercusión en el curso clínico y en el diagnóstico microbiológico de la tinea pedis. *Actas Dermosifiliogr.* 2016;107:80–82.