



## Actinic Reticuloid: A Case Report

Jami Carrera Jeanneth Elizabeth<sup>1</sup>, Rosales Cedeño Kenyi Nicole<sup>2</sup>

<sup>1,2</sup>UNIANDES, Ambato, Ecuador.

Email: [ua.jeannethjami@uniandes.edu.ec](mailto:ua.jeannethjami@uniandes.edu.ec), [ma.kenyinrc49@uniandes.edu.ec](mailto:ma.kenyinrc49@uniandes.edu.ec)

\*Corresponding author's E-mail: [ua.jeannethjami@uniandes.edu.ec](mailto:ua.jeannethjami@uniandes.edu.ec)

| Article History   | Abstract  |
|---|---|
| Received: 06 June 2023<br>Revised: 05 August 2023<br>Accepted: 21 August 2023 | <i>Actinic Reticuloid (AR) is a rare, severe, chronic photodermatosis that generally occurs in older males. Belonging to the group of cutaneous pseudolymphomas identified as benign reactive lymphocytic proliferations. It is characterized by being photosensitive, specifically to UV (ultraviolet) rays and visible light. It manifests in patients with a characteristic clinical picture of erythematous, edematous, pruritic, lichenified and scaly papules and plaques, which later develop as residual pigmented macules and progressively worsen with sun exposure; It mainly occurs in exposed areas such as the face, arms, hands, neck, among others. Actinic Reticuloid is a strange, poorly documented pathology and as a consequence of not knowing about it, patients do not go to the clinic until the disease is in an advanced stage and with a severe clinical picture of the disease; here lies the importance of the exposition of this bibliographic review where, in addition to presenting the case of a 58-year-old man, the clinical assessment is evidenced from the symptomatology and the main treatment for the patient is determined, as well as different alternatives for relieve symptoms and as a support for effective recovery.</i> |
| CC License<br>CC-BY-NC-SA 4.0   | <b>Keywords:</b> Photodermatosis, Photosensitivity, Cutaneous pseudolymphoma, Erythema-edematous, Pigmented macules   |

### 1. Introduction

In 1969 I've first used the term RA to describe a pathology that causes a photodermatosis similar to cutaneous lymphoma. In 1979 Magnus and Hawk grouped as Chronic Sensitive Dermatitis (DCS) photosensitive eczema, hypersensitivity to light and Actinic Reticuloid. Although its origin is unknown, etiologically it comes from contact with photoallergens that not only includes UV, UVB and visible light, but also triggers such as: oily resins of composite plants, rubber, potassium dichromate or fragrances. Actinic reticuloid can also occur as a secondary manifestation of HIV/AIDS. It usually affects adult men, age 40 and older. One of the predisposing factors for RA are occupations that require sun exposure such as farmers, athletes, gardeners, construction work, among others<sup>1</sup>.

Actinic Reticuloid (AR) described as a rare serious chronic pathology, is characterized by photosensitivity. It belongs to the group of cutaneous pseudolymphomas T since, from a histological and clinical point, it simulates a cutaneous lymphoma and causes various signs and symptoms among which a hypersensitivity reaction 12 to sun exposure is specifically described, it also causes erythema-

edematous, pruritic lesions and desquamation; This in areas with visible exposure to sunlight such as the face, arms, hands, among others. Its clinical manifestations normally follow an evolutionary process in three stages. In the first stage it is evident that the affected areas include only the areas exposed to the sun and generates erythema, edema and vesicles. In the second stage, photoexposed areas and covered areas are affected, manifesting papules, nodules, infiltrated and lichenified plaques. In the third and final stage, there is general involvement and causes erythroderma.<sup>2</sup>

The treatment for RA mainly includes photoprotection specifically avoiding exposure to the sun's rays, in addition it is necessary to perform allergy tests to avoid the other photoallergens that could trigger the condition. In terms of pharmacological treatment, topical or oral corticosteroids, anti-inflammatories, antibiotics can be used if necessary and supplemented with vitamin D (cholecalciferol). Another therapy is the treatments with UV radiation, which try to increase tolerance to light in patients, however, this presents discomfort since when observing improvement, the patient should not stop performing the sessions since that could mean that he develops photosensitivity again<sup>3</sup>.

RA being a rare pathology, is practically unknown and there is no more information about it, this has caused patients to ignore the signs and symptoms that indicate suffering from RA therefore, the disease can evolve to second and third stage before the patient decides to go to consultation causing it to be included in the treatment not only to avoid sun exposure but also the use of drugs to control clinical manifestations that can become very painful and disabling in extreme cases<sup>4</sup>.

## 2. Materials And Methods

Various media were used for the literature review, including pages such as Clinical Key, PubMed, NCIB and Scielo, using information from a period that was intended not to be less than five years. Selecting 27 documents of interest of which 16 were useful for this article because they included factors of interest such as etiology, epidemiology, pathophysiology, treatment, prognosis, among others. Reference was made only to books, journals and scientific articles that are duly verified. A search was performed using keywords: "Photodermatosis", "Actinic reticuloid" associated with phrases such as "signs and symptoms" and "Clinical manifestations", "Cutaneous pseudolymphoma", "Sensitive chronic dermatitis". Within the article the presentation of a case is included, so a real clinical case was selected to expose it, the case includes clinical manifestations in the patient, age, sex, occupation and treatment.

### Clinical Case

A 58-year-old male patient, farmer, married, born and resident in Quisapincha (Tungurahua). It does not refer to significant personal pathological history.



Fig 1. Hyperchromic plaques

He went to the dermatology service for presenting a year ago erythematous papular lesions initially pigmented on the back of the hands and forearms that progress to the face and on the v of décolletage accompanied by spots and intense pruritus, for which he received treatment based on antibiotics and oral anti-inflammatory drugs without improvement. (Figure 1).

On physical examination, the patient presented hyperchromic, scaly and lichenified plaques on the face, v décolleté (Figure 2 and 3), forearms and back of hands slaggged papules that converge forming lichenified plaques with the presence of fissures (Figure 4).



Fig 2. Flaking plates



Fig 3. Lichenified plates

Faced with these findings, the following complementary tests were requested: blood biometrics, blood chemistry, liver and kidney function tests, antibodies (ANA – ANTI-RO/LA) which were found within normal parameters.



Fig 4. Papules converge forming lichenified plaques with fissures

Samples were taken for histopathological examination which demonstrated:

Acanthosis, spongiosis and inflammatory infiltrate: lymphocytes, eosinophils, plasma cells (Figure 5 and 6). Atypical lymphocytes and proliferation of reactive fibroblasts (Figure 7).

Based on the clinical data and the result of the biopsy the definitive diagnosis was Actinic Reticuloid, twice patient has been admitted for erythroderma because due to his profession he is exposed to solar radiation.

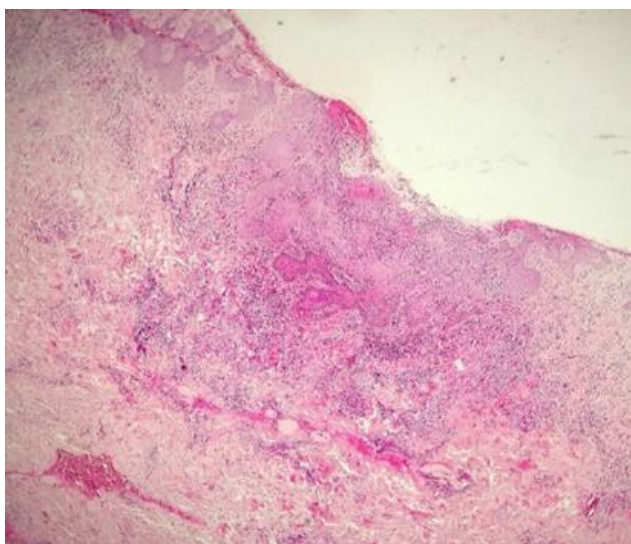


Fig. 5

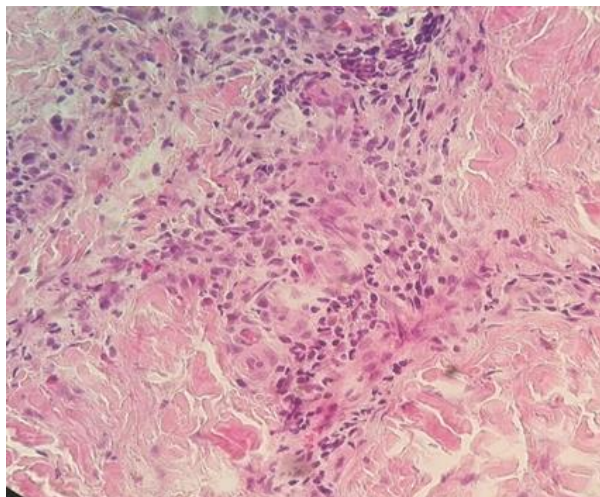


Fig. 6

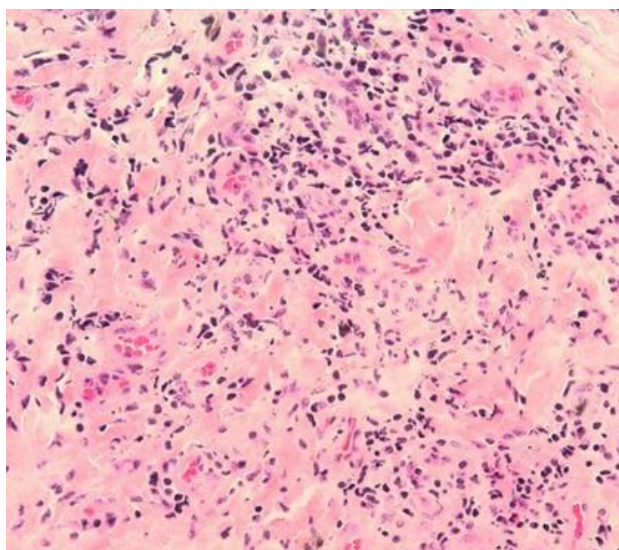


Fig 7.

### 3. Results and Discussion

A bibliographic review on Actinic Reticuloid was carried out with information of interest in the subject that refers mainly to the clinical manifestations of RA, its epidemiology, etiology, treatment and prognosis, this in order to group all the necessary information in an article that allows to extend the subject, mainly before the recognition of signs and symptoms as part of educating about the subject. RA, being a pathology of very little incidence, is unknown. Patients notice the disease in advanced stages since the main signs and symptoms are ignored as well as their causes due to little information.

This article analyzed the clinical case of a 58-year-old man who attended the consultation because he had pigmented erythematous papular lesions on his arms for a year and progressively began to present them on his face and neck area, which were constantly exposed to the sun's rays. The patient was in an advanced stage of the disease, presented erythroderma which indicated that the RA continued to progress because of its occupation continued to be exposed to the sun's rays, and therefore it was necessary in addition to completely prohibiting exposure to solar radiation, pharmacological support, however, did not show improvement; Complementary examinations were performed, including a histopathological examination in which acanthosis, spongiosis and inflammatory infiltrate were identified in the sample: lymphocytes, eosinophils, plasma cells. Atypical lymphocytes and proliferation of reactive fibroblasts, with which the patient was diagnosed with Actinic Reticuloid.

Actinic reticuloid is considered a type IV hypersensitivity reaction to an as yet unknown antigen. Since it was first coined in 1969 to date it has been shown to have three stages in which its clinical manifestations vary according to the evolution of the disease. An apparent reason for suffering from this disease is unknown, but it has been possible to identify the different triggers.

Treatment mainly consists of prevention and, where necessary, pharmacological support. There are also several optional treatments that include UV rays so that the patient develops greater tolerance to them. Diagnosing RA has been underestimated due to its infrequency. However, thanks to the histopathology, the disease is evidenced with certainty.

The prognosis of RA cases is unpredictable since there have been documented cases that have resolved spontaneously and others that have not managed to completely overcome photosensitivity. However, there are patients who have managed to improve their tolerance to sunlight and UVB rays.

The search for information on Actinic Reticuloid must be done thoroughly because it is difficult to find all the required information in the same article, it is rare and also the patient does not go to consultation due to ignorance of the pathology, therefore, there is no large amount of documentation with information about it in addition to books and magazines generally used by health personnel in training. Therefore, it is important to note that in this article the greatest amount of information has been grouped in order to create a complete, clear and precise document.

#### 4. Conclusion

The information compiled allowed the conceptualization of the Actinic Reticuloid, grouping different points of analysis on the aforementioned disease, summarizing it as a strange condition of chronic character in which there is a photosensitivity to UV rays, UVB, visible light and other photoallergenic triggers.

The clinical manifestations of RA have been presented for informational purposes for both health care personnel and non-health care personnel. This allows to identify the signs and symptoms presented by the disease for a more accurate diagnostic suspicion, creating the possibility of a faster definitive diagnosis. People can inquire about the condition, thus creating a chain reaction that allows information about RA to be disseminated and prevents those who suffer from it, due to misinformation, from going to consultation in the first manifestations.

Regarding the treatment and prognosis of the disease. Thanks to different literature reviews, it was concluded that the treatment consists of completely avoiding exposure to triggering factors, in addition to cases in which photosensitivity progressively disappeared or simply improved its tolerance. Therefore, patients suffering from Actinic Reticuloid and its evolution based on the disease depends on several factors such as the stage in which the patient is at the time of going to the medical service and their own care to avoid contact with photoallergens that can worsen their condition.

It is important to note that updated and truthful information on RA was provided, using from different media based on the first documentations of patients affected with the disease to articles written no more than a year ago, which allows a contrast of the information and highlight the variations and advances in the RA with respect to the treatment and prognosis of patients.

#### References:

1. Tassi, Florence (2014). "Chronic actinic dermatitis: actinic reticuloid." *Argentine Dermatology* 20.2: 84-93.
2. Villaverde, R. R., Melguizo, J. B., & Pérez, M. B. (2001). Reticuloide actínico. *Revista Española de Geriatria y Gerontología*, 36(5), 293-296. [https://doi.org/10.1016/S0211-139X\(01\)74739-7](https://doi.org/10.1016/S0211-139X(01)74739-7)
3. Magaña, Pablo, and Jorge Fernández-Díez (2015). "Actinic reticuloid Mario Magaña1, 2." *Pathology* 53: 199-203.
4. Cepeda, J., M. Bittar, and A. Amprino (2020). "Chronic actinic dermatitis." *Revista Argentina de Dermatología* 101.3.
5. López Villaescusa, María Teresa, et al (2012). "Chronic actinic dermatitis in the world of work." *Occupational Medicine and Safety* 58.227: 128-135.
6. Lémus, Katherine Dariana Rodríguez (2021). "Determinants of photosensitivity and most frequent dermatoses." *Journal of Scientific Diversity* 1.1: 177-183.
7. Valbuena, Martha Cecilia, Alejandro Castellanos-Angarita, and Juliana Pérez-Bernal (2021). "Visible light, a view from dermatology." *Dermatology Mexican Journal* 65.1: 44-52.
8. Rodríguez Lemus, Katherine Dariana (2020). Determinants of photosensitivity and most frequent dermatoses. Diss. University of San Carlos de Guatemala.
9. Pérez, Raúl Ortega, et al (2020). "Main primary dermatoses in HIV patients." *Infectious Diseases and Microbiology* 39.3: 103-108.
10. Castillo, G., et al. "PHOTOTHERAPY IN ATÓPICA dermatitis; EPIDEMIOLOGICAL DESCRIPTION AND THERAPEUTIC PROFILE IN OUR CENTER." 3.
11. Cuenca, Sylvana, et al (2020). "DERMATOLOGY (DERM) DERM-01. MOST FREQUENT SKIN PATHOLOGIES DIAGNOSED BY HISTOLOGICAL STUDY OF BIOPSIES IN." *Clinical Research* 61. Suppl 1: 91
12. Zak-Prelich, M, and R A Schwartz. "Actinic reticuloid." *International Journal of Dermatology* Vol. 38.5 (1999): 335-42. <https://doi.org/10.1046/j.1365-4362.1999.00711.x>
13. Bologna, J., Schaffer, J. and Cerroni, L., 2018. *Dermatology* - 4th Edition. [online] Elsevier.com. Available at: <<https://www.elsevier.com/books/dermatologia/bologna/978-84-9113-365-0>>

14. Aguilar Panez, Adriana. "Photodermatosis in adults with sun exposure in relation to height above sea level in skin type III or IV." (2017).
15. Cepeda, J., M. Bittar, and A. Amprino. "Chronic actinic dermatitis." *Revista argentina de dermatología* 101.1 (2020): 51-60.
16. Romero-Pérez, D., M. Blanes Martínez, and B. Encabo-Durán. "Cutaneous Pseudolymphomas." *Proceedings Dermo-Sifiliográficas* 107.8 (2016): 640-651.