

Abstract. In the first issue of *Actas Dermo-Sifiliográficas*, Juan de Azúa published a magnificent article on contact dermatitis caused by hair dyes, which reflects his profound knowledge of allergy and how the skin responds to chemical stimuli. It gives a brilliant description of irritative and allergic dermatitis, although without naming the allergic form explicitly. Of note is how he is concerned about the composition of “those Parisian dyes”; so much so that he contacted the local laboratory to determine their chemical composition and how they work. It is a delight to study the case histories and treatments administered to these 15 patients. During the months of treatment, he reports trying different officinal formulas that, although unknown to most of today’s dermatologists, nevertheless managed to cure the patients in the end.

Key words: hair dyes, hair, PPDA, quinones.

DERMATIS PRODUCIDA POR UNA TINTURA PARA EL PELO. (QUINONA RESULTANTE DE LA ACCIÓN DEL AGUA OXIGENADA SOBRE EL CLORHIDRATO DE PARAFENILENODIAMINA), POR JUAN DE AZÚA

Resumen. En este primer número de *Actas* Juan de Azúa publica un magnífico artículo sobre la dermatitis de contacto por tintes capilares, comprobándose sus altos conocimientos sobre la alergia y la forma de responder la piel a estímulos químicos. Describe magistralmente las dermatitis irritativas y las alérgicas, aunque a estas últimas no les da esta denominación propiamente dicha. Es de destacar cómo se preocupa por la composición de «estos tintes parisinos» poniéndose en contacto con el Laboratorio Municipal para poder conocer la composición química y su forma de actuar. Es una delicia leer detenidamente las historias y el tratamiento realizado a los 15 enfermos que cita, son meses de tratamientos en los que se alternan diversas fórmulas magistrales desconocidas hoy día por la mayoría de los dermatólogos pero que al final... conseguían curar al enfermo.

Palabras clave: tintes de pelo, pelo, PPDA, quinonas.

This superb article published by Juan de Azúa in 1910 describes a series of cases in which contact with the *p*-phenylenediamine contained in some hair dyes produced an allergic skin reaction. The cases described resemble those still found today among women who are allergic to *p*-phenylenediamine and coloring their hair.

Following the use of a “Parisian dye,” the patients described by Azúa began to develop a highly edematous eczema resembling erysipelas on the face, which later spread to the entire body. This case series included only one man who dyed his beard using this same dye.

This is the first article on contact dermatitis published in *Actas*, and the author begins with a masterful description of both irritant and allergic contact dermatitis, although without using this term at any time (Figure).

“With greater or lesser frequency, and with highly variable degrees of intensity and extension according to their chemical composition, how they are used, and the susceptibility of the skin, hair dyes may produce skin disorders that sometimes remain localized *in situ*, while in other cases they become more extensive and even generalized. In rare cases they engender systemic toxic

reactions as a result of the lead, mercury, or other heavy metals they contain.”

It should be remembered that Clemens von Pirquet and Béla Schick published the foundational work of immunology, *Serum Sickness*, at the beginning of the 20th century in 1903, and in 1906 Pirquet published the article in which he coined the terms “allergy,” “allergic,” and “allergen,” specifying that they should only be applied to immune reactions.

Azúa, though he does not use these terms, either knew or intuited the mechanism involved, since in this article he describes irritant and allergic reactions without referring to them as such. He also cites the number of cases studied (15) and explains how he performed an epidemiological analysis based on his observation that the incidence was low, at least in his large practice of 40 000 patients. In this way he arrived at a figure of 0.2075 per 1000 patients, noting that as the price of hair dyes came down, he began to see more cases among the lower classes, while at the beginning he encountered them only in upper-class individuals.

It is interesting that Azúa knew a good deal of chemistry, and describes in detail the steps involved in coloring hair, steps that have not changed with the passage of time.

The scientific rigor with which Azúa established the cause of the problem led him to request the assistance of the Municipal Laboratory (Dr Torres y Canal) in order to show that hair dyes contained *p*-phenylenediamine and its salts. At that time either accurate product labeling did not exist, or confidence in the information provided by the manufacturer was not very high.

All the cases described are noteworthy for the enormously protracted duration of clinical symptoms, since the available therapeutic arsenal did not yet include either corticosteroids or antibiotics. Patients with contact dermatitis suffered through months of itching and eruptions.

The last paragraph of the article provides an excellent summary of Azúa's recommendations for treatment. He

prescribed the use of warm compresses (of elder flower, chamomile, boric acid solution, etc.), lanolin, rosewater, and Lassar's paste (zinc oxide), explaining how each affected region of the body (scalp, eyes, face, the area behind the ears, etc) required a different treatment; treatment of infections with a formula of tumenol-zinc-resorcinol (4-10-50); and the use of gutta-percha (a natural latex) as a dressing in cases of exudative inflammation (blisters or phlyctenae).

This article is worth reading not only for an appreciation of Azúa's knowledge and skill, but also because it shows how basic detailed case histories were in diagnosis and treatment, and how, without either topical or oral corticosteroids, it was possible to treat severe contact dermatitis successfully.