

Infectious Nature Of Leprosy by Juan De Azua

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Contagiosidad de la lepra (1).

POR J. DE AZÚA.

El conocimiento exacto del modo de adquisición ó propagación de las enfermedades, fundamenta y dirige los procedimientos de defensa individual y colectiva que tan admirables resultados han dado en todas las infecciones cuyos agentes causales y manera de llegar á ser patógenos, se conocen bien.

Respecto de la lepra, no existe aún un criterio uniforme acerca de cómo se adquiere y difunde, aunque el inmortal *Hansen* nos haya enseñado su verdadera etiología. De esta falta de orientación uniforme arranca cierta laxitud en la generalización, eficacia y homogeneidad de la profilaxis contra el mal de San Lázaro.

La depuración de las hipótesis alegadas ha reducido en último término á tres grupos, los factores para la adquisición de la enfermedad.

- 1.º Alimentos y bebidas, como *vehículos portadores* de bacilos.
- 2.º Herencia.
- 3.º Contagio.

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SUMARIO.—OYARZÁBAL: Chancro sífilítico forunculoide del pubis ó inoculación sobre un forúnculo de un chancro sífilítico.—Vacuna en el dorso de las manos.—ALVAREZ SÁINZ DE AJA: Dos casos de síndrome de GUILLAIN-THAON.—J. S. COVISA: Un caso de pénfigo vulgar.—NONELL: Un caso de sífiloma uretral perforante precoz.—J. DE AZÚA: Hiperkeratosis universal congénita maligna.—Prúigo en placas simétricas de origen probablemente tuberculoso.—Intoxicaciones mercuriales terapéuticas.—Preparación de los calomelanos, salicilato de mercurio, etcétera, según la fórmula de LANG.—Contagiosidad de la lepra.—Procedimiento del émbolo anestésico para los lavados uretro-vesicales por presión.

Abstract. In this article by Juan de Azua, published in the second issue of *Actas Dermosifiliográficas* in 1909, the author reports his experience in 139 patients, most of them from Hospital San Juan de Dios, Madrid, Spain, and states he is sure that leprosy is a contagious disease. He discusses the factors related to contagion, which occurs in a closed and family environment, emphasizing socioeconomic factors such as hygiene and promiscuity. He considers direct contact to be important, though also recognizing indirect contact through drinks and food; he totally rejects a hereditary mechanism. Epidemiologically, he draws attention to the higher prevalence of the disease in Andalusia, though not forgetting “*La Lepra de Ultramar* [leprosy from distant lands]”—32 cases in Spaniards in Cuba and the Philippines. He believes isolation in hospitals or special sanatoriums, such as San Juan de Dios or San Lázaro in Santiago, Granada, and Seville, to be the best prophylaxis, and he considers it would be appropriate to create “Hospitals for poor lepers.”

Key words: leprosy, communicable diseases.

CONTAGIOSIDAD DE LA LEPROA, POR JUAN DE AZÚA

Resumen. En este artículo de Juan de Azúa, publicado en el número 2 de «*Actas Dermosifiliográficas*» de 1909, el autor se manifiesta totalmente seguro de la contagiosidad de la lepra, exponiendo su experiencia en 139 enfermos, la mayoría de San Juan de Dios. Comenta los factores de contagio que es íntimo y familiar, destacando los factores socioeconómicos como la higiene y la promiscuidad. Considera muy importante el contacto directo aunque sin olvidar el indirecto como las bebidas y alimentos, descartando totalmente la herencia. Epidemiológicamente señala la mayor endemia en Andalucía sin olvidar «*La Lepra de Ultramar*», 32 casos contraídos por españoles en Cuba y Filipinas. Considera que la mejor profilaxis es el aislamiento en hospitales o en «asilos especiales» como San Juan de Dios, San Lázaro de Santiago, Granada y Sevilla, considerando apropiado la construcción de «Hospitales para Lazarinos pobres».

Palabras clave: lepra, contagiosidad.

On the occasion of the 100th anniversary of the Spanish Academy of Dermatology, which *Actas Dermo-Sifiliográficas* shares, I have reviewed the articles published in this journal on leprosy, and selected as especially interesting those by Professor Juan de Azúa, “The infectious nature of leprosy” and “The serology of leprosy,” published in the first issues of 1909.^{1,2}

Juan de Azúa received his training in dermatology at the Hospital San Juan de Dios, studying with Olavide and Castelo, and became the first professor of dermatology at the medical school in Madrid, where he began teaching in 1892. In 1909 he founded the Spanish Society of Dermatology and Syphilography, which held its first meeting on May 6, 1909, the same year in which *Actas Dermo-Sifiliográficas*, the oldest medical journal in Spain, published its first issue. In 1925, the name of the society was changed to the Spanish Academy of Dermatology and Syphilography, and subsequently to the Spanish Academy of Dermatology and Venereology (AEDV).

He published numerous works on syphilis and other dermatoses, notably on “*dermitis del lavado*” (dermatitis resulting from frequent hand washing) and pseudoepitheliomas, but here I will discuss his work on leprosy, which, according to his classification, is considered part of the group of “chronic neoplastic infections.”

Azúa also participated in the Second International Leprosy Conference held in Bergen (Norway) in 1909, with Hansen presiding. The theme of the conference was “The Treatment of Leprosy.” Another Spaniard, Francisco Tello, was also a participant, presenting a paper on “Leprosy in Spain.” Another 100th anniversary being celebrated this year is that of the opening of the Fontilles Sanatorium on January 17, 1909.

Juan de Azúa’s article “The infectious nature of leprosy,” published in July 1909, has been chosen for comment. In it, the author first analyzes the forms of and factors involved in the propagation of infectious leprosy, which had been well defined since Hansen discovered *Mycobacterium leprae* in 1873. Based on a sample of 139 patients, he analyzes how the disease was transmitted and argues in favor of direct contagion, although he observes that in some cases it is not known precisely how infection occurred. Although this remains unclear, he maintains a firm belief in the role of continued close contact among family members, and stresses above all the importance of poverty and squalor, physical contact, shared bedding, and reduced living spaces lacking in ventilation and basic hygiene, all of which coincide with the conditions Hansen described for Norway at the end of the 19th century.

He rejects the theory of hereditary transmission defended for years by the Turkish scientist Zambaco Pachá, presenting cases of leprosy involving parents or siblings which he attributes to contagion among family members, since the disease appears after 2 to 6 years of living together at close quarters.

Azúa also identifies indirect forms of contagion caused by food or drink contaminated by patients in areas of endemic disease, since there was no history of contact with infected persons.

Indirect contagion has been observed recently in various populations in Indonesia in relation to the water supply, where *M leprae* has been detected through the use of polymerase chain reaction techniques. Azúa also remarks on the possibility of intermediary host (insect) contagion, having observed the bacillus in *Demodex folliculorum*. At present it is known that in countries such as Mexico and the United States, individuals not living in physical contact with infected persons may contract leprosy from touching or eating armadillos.

Azúa considers that unbroken skin provides a defensive barrier against entry of mycobacteria, casting doubt on cases of cutaneous inoculation. This view coincides with a tendency, years later, to assign greater importance to penetration of the respiratory tract and considerably less to the cutaneous tegument.

Epidemiologically, Azúa's sample is very interesting with respect to the patients' place of origin: Andalusia is the most endemic region, with 36 cases (15 from Jaén, 12 from Cordoba, 3 each from Malaga and Almería, and 1 each from Huelva, Seville, and Cadiz), followed by Valencia and Alicante with 28 cases. The majority of the patients were from the San Juan de Dios Hospital, where Azúa had access to 20 beds distributed over 2 wards, one for men and one for women, all from different provinces. After 1904, however, each province was required by law to provide care for its own patients in isolation wards. The new regulations, by highlighting the need for basic hygiene, prevented cases of contagion involving either hospital staff or other hospital patients with whom wards were previously shared.

Azúa's sample is also interesting for the group of "overseas lepers," 32 cases diagnosed in Spaniards who contracted the disease in Cuba and the Philippines. This contrasts with the current situation in Spain. In the

past 10 years, 90% of new cases have been diagnosed in immigrants from Africa and Latin America.

Going back to the end of the 19th century and the beginning of the 20th, scientific discoveries in Scandinavia and an increase in cases of leprosy in Spain stimulated greater interest on the part of the health authorities in keeping track of the patients and where they were hospitalized. At that time, apart from the San Juan de Dios Hospital, patients were sent to the hospitals of San Lázaro, Santiago, Seville, and Granada. Two of the great names in the history of medicine, Rudolf Virchow and Albert Neisser, went to Granada when the hospital was under the direction of Benito Hernando to study the mycobacterium in hospitalized patients.

Azúa regards isolation in hospitals or specialized sanatoria as the best way to prevent "poor lepers" from spreading the disease, while patients who enjoy more comfortable circumstances are urged to remain at home, make their illness known, as was obligatory, and instruct members of the household in how to avoid contagion. Any new cases in the household would have to be reported. He also considered the creation of sanatoria for "rich lepers" to be an appropriate measure.

In sum, this article constitutes an interesting study of leprosy from the early years of *Actas* contributed by the famous Professor Juan de Azúa, the best known Spanish dermatologist and a man ahead of his time both in patient care and in the study of anatomical pathology whose brilliance illuminates this anniversary celebration. This emblematic and historic event means a great deal for our specialty, especially for those of us who had the opportunity to participate in the 50th anniversary celebration of this institution in Madrid in 1959. I am certain that the scientific excellence of this 100th anniversary conference will transform it into yet another success for Spanish dermatology.

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