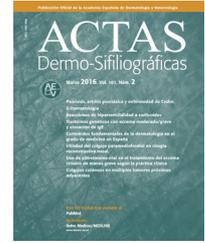




ACTAS Derma-Sifiliográficas

Full English text available at
www.actasdermo.org



HISTORY AND HUMANITIES IN DERMATOLOGY

Dermatologic Diseases in 8 of the Cantigas of Holy Mary of Alfonso X the Learned – PaPart 2: Genital Mutilation, Scrofuloderma, Scabies, Erysipelas, and the Ailments of the King[☆]



Análisis de la enfermedad dermatológica en 8 *Cantigas de Santa María* del Rey Alfonso X el Sabio. Parte II: mutilación genital, escrofulodermia, sarna, erisipela y los males del Rey Alfonso

J. Romani^{a,*} X. Sierra,^b A. Casson^c

^a Servicio de Dermatología, Hospital Parc Taulí, Universidad Autónoma de Barcelona, Sabadell, Barcelona, Spain

^b Dermatólogo práctica privada, Terrassa, Barcelona, Spain

^c Software Engineer, Impulsor del proyecto Cantigas de Santa Maria for singers, York, Inglaterra

Received 18 November 2015; accepted 26 February 2016

Available online 1 August 2016

Introduction

The reader who seeks familiarity with the skin diseases mentioned in the *Cantigas of Holy Mary* before beginning this article should read the first of this 2-part series, which was published in the previous issue of this journal.¹ Part 1 describes the diseases mentioned in Cantigas 54, 91, and 93 along with the miraculous means of curing them. Part 2 continues with the events described in 4 more cantigas: 105, 321, 225, 346, and 367. We then conclude with reflections

on the diseases suffered by King Alfonso X the Learned himself, his character, and the importance of his legacy.

Cantiga 105, ‘‘Gran Piedad’ e Mercee e Nobreza’’ (Great Piety and Mercy and Nobility): Medieval Reconstructive Surgery in a Case of Cruel Mutilation

The 105th song tells an amazing tale of faith, sexual abuse, and attempted reconstructive surgery of the perineum requiring the intervention of the Virgin Mary. At the center of the story is a maiden who promises Mary that she will keep her virginity but whose parents nevertheless oblige her to marry. Some time passes and because the young wife remains unyielding, her husband is unable to consummate the marriage. Incensed, he takes a knife and mutilates her genitals: ‘‘In this way a year passed, during which he could do nothing with the maiden. [Then] he hurt her so badly with his blade that he nearly killed her, cruelly wounding

[☆] Please cite this article as: Romani J, Sierra X, Casson A. Análisis de la enfermedad dermatológica en 8 *Cantigas de Santa María* del Rey Alfonso X el Sabio. Parte II: mutilación genital, escrofulodermia, sarna, erisipela y los males del Rey Alfonso. *Actas Dermosifiliogr.* 2016;107:661–665.

* Corresponding author.

E-mail address: jromani@tauli.cat (J. Romani).



Figure 1 This highly detailed illustration for Cantiga 105 shows the moment when the woman's genitals are mutilated by her husband with a blade while she is held firmly by women dressed in the Islamic fashion. The image comes from the Rich Codex (*Códice Rico*) of the *Cantigas of Holy Mary* of Alfonso X the Learned. The codex is held in the library of the Monastery of El Escorial and is reproduced here with permission. © by Patrimonio Nacional.

her in a place I am ashamed to mention." Doctors try to undo the damage. Her situation then becomes even more complicated when all, including the maiden, fall ill with St. Martial's fire. In the end, the Virgin saves them all.

Even more shocking than the story itself is the illustration that accompanies it (Fig. 1). Four women restrain the maiden's hands and legs while she literally undergoes "surgery" on her genitals. It is interesting that one of the women restraining the wife has her mouth covered, as if wearing a surgical mask. However, the clothing could suggest that she is a follower of Islam, as were most midwives and other women who practiced one or another branch of medicine at this time and place.

Cantiga 321, "O Que Mui Tarde ou Nunca" (What May Late or Never Heal): Scrofuloderma Healed

The 321st song tells the story of a girl who had suffered the cervical swellings of scrofuloderma for 3 years. The word we use for this disease comes from the Greek *scrofa*, which means sow or boar. However, the Spanish or Galician-Portuguese word used (*lamparón*) could refer to the shiny, stretched look of the skin over a typical lesion of this disease: one 19th-century Spanish etymological dictionary² noted the association of this term with lamps and brilliance. Likewise, the fact that the disease causes ulcerating sores in the area of the neck and upper chest (Fig. 2) seems consistent with another meaning of *lamparón*: stain. Scrofula is



Figure 2 A patient with scrofuloderma, a condition referred to as *lamparones* (shiny, stretched swellings) in Cantiga 321. (Photograph from the archives of Hospital Parc Taulí, Sabadell, Barcelona).

a tuberculous disease of the neck that extends to the skin, where it forms abscesses, fistulas, and scars. The disease is chronic and its course recurrent, and although scrofula does not kill, it causes severe scarring and deformity.

In the song, the girl's mother desperately seeks out one physician after another in the hope of finding a cure for her daughter, exhausting all her means in the process. They finally go to the king, who says he has no power to cure her and advises the mother to ask the Virgin to do so: "You say I have this power and that is foolishness. But do as I say: stop beseeching me and instead take the child to the beautiful Virgin in Majesty." With this gesture, Alfonso wishes to make very clear that Mary's powers surpass his own.

We must mention at this point that the miraculous ability to cure scrofula by the laying on of hands was attributed to the kings of France and England at this time (Fig. 3). The royal touch,³ as the ceremony was known, was first practiced



Figure 3 Illustration of Charles II of England extending the royal touch. This king is estimated to have performed the ceremony with some 92,000 patients with scrofula over the course of his reign. Engraving by Robert White (1864). The image, in the public domain, is available from https://en.wikipedia.org/wiki/royal_touch.

by Clovis I. The kings of Castile, unlike their peers to the north, never adopted the practice. The most likely explanation for this difference is that while monarchs ruled by divine right in France and England (and miracles would therefore have bolstered royal power there), the Castilian monarchs occupied a position that was more like a military command, for which confirming miracles were unnecessary. The most recent reference we can find to a ceremony featuring the royal touch involved Charles X of France, who laid his hands on a series of patients after his coronation. The context was the Bourbon Restoration and the intention was to recover the legitimacy of the notion of the divine right of kings. Charles would be the last monarch crowned in France, however. The ceremony for the royal laying on of hands called for physicians to present their patients to the king, who then said, “The king touches. God cures.”^a In the 1825 ceremony, the sick were presented by the eminent surgeon Guillaume Dupuytren, and the prominent dermatologist J. L. Alibert was among those in attendance.

Cantiga 225, “Muito Bon Miragre a Virgen Faz” (Many a Fine Miracle the Virgin Makes): Loxoscelism or Scabies?

The events in Cantiga 225 concern one of the most amazing tales in the collection. The miracle takes place in Ciudad Rodrigo, in the modern Spanish province of Salamanca. A pious priest celebrating Mass is about to drink from the chalice when he notices a large spider swimming in the consecrated wine. He plucks up his courage and drinks the creature in along with the wine, and that is how the spider comes to travel under his skin (“between flesh and skin”) and infest him for some time, becoming visible when his body is exposed to the sun: “[The spider] walked throughout his body, not causing pain or illness, by the power of the Holy Virgin Mary, and if he stood in the sun, the spider could be seen.” When the priest prays to the Virgin for help, the spider travels to his fingertip and one sunny day the man begins to scratch himself and the spider comes out from under his fingernail. The story does not end until the priest manages to consume the spider again during another Mass: “He ate it and swallowed it, and said he found it a very tasty morsel.” To everyone who heard the story, this seemed to be an amazing miracle, and afterwards the priest’s “faith was greatly strengthened, and he was not given to lust.”

Spider infestation, which occurred magically in this story, is also mentioned in other songs in the collection. In the 201st, for example, spiders cause swelling in a woman, and when she is near death, she invokes the Virgin. In Cantiga 222 a spider invades another priest. In fact, this may be the same story, for its setting is a convent near Lisbon (Achelas) and that of Cantiga 225 (Ciudad Rodrigo) was within reach of Portuguese language contact. The infested priest in Achelas is about to be bled when the spider emerges from the area

of puncture. It is captured by the nuns and shown to all interested parties, to their wonder.

These descriptions of spider infestations lead us to several interesting conclusions. One is that this affliction seems to represent punishment for the sin of lust. This is the case in the stories of the 2 priests and in the tale of a woman who promises to remain a virgin but nonetheless sins and has 2 children, whom she kills (Cantiga 201). The association between spiders and lust suggests scabies, an infestation by the *Sarcoptes scabiei* mite that was very common in the Middle Ages. Scabies causes many unpleasant symptoms, but not death, and all these stories tell of a nonlethal poison (*poçón*) inside the afflicted person’s body but never mention the possibility of death; moreover, scabies is known to be sexually transmitted.³ It is revealing, and even realistic, that the mites could be seen by means of transillumination when the patient was exposed to the sun. The *Sarcoptes* species cannot be seen with the naked eye, but given a certain angle of illumination and with the help of a magnifying glass (such as might have existed in the time of King Alfonso), it would be possible.

The etiology of scabies was intuited in the Middle Ages,⁴ initiating the process of undermining Galen’s humoral theories. The work of Hildegard von Bingen—a nun, healer, philosopher, and musician of the 12th century—recorded the notion that the disease was caused by small worms (*gracilii vermiculi*), and she experimented with sulfur treatments.⁵ The Arab physician Ibn Zuhr of medieval Andalusia also wrote on the topic, although his work was later neglected. He recorded what was probably the first medical description of the mite as the agent responsible for scabies. There are numerous historical references to the custom of removing mites with pins, as was practiced by parents caring for children or couples helping each other with the task. King Rodrigo was in the habit of seeking relief by having Doña Florinda perform the service “in the afternoon, near a window that let in the light of day.”⁶ Only under such conditions could the presence of mites be discerned. However, even though society had been aware of mite infestation for centuries, it remained unclear whether these small arthropods were the cause or the consequence of the disease. It was not until the 17th century that Cosimo Bonomo asserted that the mite was the cause of the disease, stating that the etiology was “the constant bites these animalcules make in the skin.”⁷ Still, confirmation of this mechanism would have to wait until 1834, when the Corsican Simon François Renucci, one of Alibert’s best students, showed his master and fellow disciples how the women of his homeland removed mites with pins.

Scabies was treated with multiple procedures and remedies in the Middle Ages. Mere removal of mites was clearly insufficient, given that new ones would hatch from the eggs left behind.

Cantiga 346: “Com’a Gran Enfermidade” (With a Great Malady): Curing a Case of Erysipelas

The subject of Cantiga 346 is the curing of a highly prevalent skin disease that was surely life-threatening in the Middle Ages. A lovely young woman of Estremoz in Portugal is suf-

^a William III (of Orange) is said to have been skeptical of the supposed curative properties of the royal touch. Obligated by office and tradition to perform it nonetheless, he placed his hands and muttered under his breath, “God grant you better health and more sense.”

fering a terrible disease that causes her arm to swell and develop erythema and blisters: “Soon her arm was very swollen, . . . red and blistering in a great and serious way.” She loses her appetite, her condition worsens, and her case is thus brought before the Virgin, who cures her immediately. The people celebrate the miracle and give praise to Mary.

The description of the young woman’s disease suggests none other than erysipelas to dermatologists. Known in folk medicine by various names (e.g., *dessipela*, *decipola*, the rose, or St. Anthony’s Fire⁸), this condition was treated with hundreds of magical and botanical remedies in attempts to halt its progress.

Today we know erysipelas to be caused by pyogenic bacteria and it is easy to treat, but in the Middle Ages it was responsible for a great deal of suffering and death. The name was often applied to other acute conditions of the skin that caused fever, erythema and blistering; an example is ergotism, with which it was long confused. Fuchs was able to distinguish these 2 diagnoses only in 1834, but whether a bacteria or a toxin was responsible for the condition was unclear for much longer. Fehleisen discovered cocci in cultures of erysipelas lesions in 1881 and was able to reproduce the disease on inoculating mice, thus firmly demonstrating the etiology.

Cantiga 367: “Grandes Miragres Faz Santa Maria” (Holy Mary Works Great Miracles): Did King Alfonso Have Right Heart Failure or Stasis Dermatitis?

The health of Alfonso X is one of the recurring topics in the collected songs; one example is Cantiga 367. The Learned King—referred to with the rhyming phrase “*Rei de Castela e Santiago de Compostela*” (the King of Castile and Santiago de Compostela) in this song—finds himself traveling in Andalusia to visit a church he had ordered built. He falls ill and while sailing toward Santa María do Porto, his legs swell and become inflamed, “so red that all believed the affliction would not soon be cured.” They swell so much that he is unable to put on his boots until “his skin split open and yellow water came out.” The king stubbornly insists on continuing the voyage, however, and on arrival he prostrates himself before the Virgin, his legs return to normal, and so the king is cured.

This description corresponds to one of Alfonso’s recurring afflictions, the one that probably led to his death: hydrops. We now know this condition not as a concrete disease but rather as a sign—the accumulation of fluid in the legs, abdomen, or lungs—that can have various causes. Leg edema is a response to problems with peripheral circulation, such as the poor venous return that may be the result of such processes as right heart disease or kidney or liver failure. The description in Cantiga 367 is very graphic and relatively accurate: the king’s legs swell enough to prevent him from wearing his boots, his skin breaks open and a yellowish fluid escapes, suggesting a superinfection. The account also says that Alfonso arrived at the Virgin’s altar on a Friday night and that a vigil was organized. By the hour of matins the next day, the edema had subsided. Besides the Virgin’s intercession, it is quite possible that lying hori-

zontal for several hours improved the hydrostatic imbalance present and increased cardiac output, contributing to alleviating the king’s condition.

Reflections and Notes on the Health of Alfonso X the Learned

King Alfonso lived at a key time in the Middle Ages: the Renaissance of the 12th and 13th centuries, which spanned years of intense social, technical, scientific, and philosophical change. When he rose to the throne on the death of his father, Fernando III, the kingdom was also at a key moment in its history. The Christian territories of the Iberian Peninsula had grown larger through the Reconquista, and many Christian courts came to include learned men from the 3 cultures that were present. Their cooperation—and royal support for it—led to the rich Galician–Portuguese school of poetry and the Toledan school of translators. Later came philosophers of the stature of Ramon Llull. King Alfonso, curious and eager to promote progress, served as a catalyst for these movements. His education, following the manner of Koranic schools, included the reading of the Aristotelian texts that had been translated to Arabic, giving him a perspective that was possibly unique among monarchs of his time.

Alfonso’s life was not easy, however, suffering as he did from various health problems. In addition to the aforementioned hydrops, for many years he endured a tumor or inflammatory process of the face that made eating difficult. In fact, a popular legend attributes the origin of Spanish tapas to the king’s custom of taking wine and small amounts of food between meals. This condition, which may have been squamous cell carcinoma, chronic sinusitis, or lymphoma, led to fits of anger and pain (probably due to nerve involvement). One eye was said to bulge from its socket as a result, leading his son Sancho to sneer. Calling his father leprous and deranged, Sancho was probably motivated by politics given that the two were also clashing on the battlefield. The king’s ailment cannot be inferred from the many illustrations of him in the *Cantigas*. The nature of art and the artistic canons of the period obliged the illustrators to present an idealized image of a king free of all defects.

Salvador Martínez, author of an exemplary biography of Alfonso,⁹ calls him “very straightforward, highly educated and intelligent” but also observes that “his ingenuousness led to problems in personal relationships. The outbursts of anger rooted in his disease led to serious confrontations with his brothers Fadrique (whom he ordered killed) and Enrique, whom he loved but also condemned to death.”

We also know from Cantiga 235 that he fell seriously ill during a stay in Vitoria from the summer of 1276 through the next spring. He recovered when they placed the first volume of the *Cantigas de Santa María* upon his breast. That an author who traveled with his book would be protected by it was not an unusual notion. The author of the *Codex Calixtinus*, Aymeric Picaud, also claimed that he was kept safe from storms and other dangers because he kept the codex by his side.

The successors of Alfonso X presided over Castilian courts with cultural models different from the one the Learned King had fostered. Subsequent monarchs turned their backs on intellectual pursuits, on contact with other cultures

or places, and on the attainment of tolerance among the peninsula's 3 cultures. Thus the Castilian court regressed to the more traditional customs current under other European monarchs of the time.¹⁰

Alfonso's patronage of science and his interest in astronomy is remembered today in the name of a lunar crater on the far eastern side of Mare Nubium. Now called Alphon-sus, the crater's original name, given by Giovanni Riccioli in 1651, was Alphonsus Rex.¹¹

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References

1. Análisis de la patología dermatológica en 8 Cantigas de Santa María del Rey Alfonso X el Sabio. Parte I: introducción, el monje resucitado lac virginis, el ergotismo y la lepra. *Actas Dermosifiliogr.* 2016;106:571–5.
2. Monlau. Diccionario etimológico. [cited 2016 Apr 24]. Available from: www.etimonlau.com.
3. Montoya J. Poer as maos sobre os lamparoes. *Reminiscencias del milagro regio: toucher les écrouelles (CSM 321)*. *Exemplaria Hispanica.* 1992;2:125–34, 1993.
4. Riva MA, Anchise S, Rotasperti A, Deho G. Dante and dermatological diseases: A literary description of scabies in the Middle Ages. *J Eur Acad Dermatol Venereol.* 2016;30:167–8.
5. Von Bingen H. *Hildegard Von Bingen's Physica: The complete English translation of her classic work on health and healing*. Rochester, USA: Healing Arts Home; 1998.
6. De Weiner J. *Rodrigo a Rodrigo en el romancero histórico*. Kasse, Germany: Reichemberg ed Kassel; 2003.
7. Díaz RM, Vidaurrázaga C. Historia del ácaro de la sarna. *Piel.* 2003;18:471–3.
8. Román J. *Dermatología popular en Galicia*. *Piel.* 1994;9:114–8.
9. Salvador Martínez H. *Alfonso X el sabio: una biografía*. Madrid, Spain: Polifemo; 2003.
10. Burns RI. *Emperor of culture: Alfonso X the learned of Castile and his thirteenth century renaissance*. Philadelphia; 1990.
11. Cocks Elijah E, Cocks Josiah C. *Who's who on the Moon: A biographical dictionary of lunar nomenclature*. Tudor Publishers; 1995.