



Medicina & Storia

Anno XIII

3, n.s. 2013



Edizioni ETS





Essays published on “Medicina & storia” are double-blind peer-reviewed.

six-monthly journal / periodico semestrale

Subscription (paper, individual): Italy € 50,00, Abroad € 80,00

Subscription (paper, institution): Italy € 60,00, Abroad € 100,00

Subscription fee payable via Bank transfer to

Edizioni ETS

Banca C. R. Firenze, Sede centrale, Corso Italia 2, Pisa

IBAN IT 97 X 06160 14000 013958150114

BIC/SWIFT CRFIIT3F

reason: abbonamento “Medicina & storia”

info@edizioniets.com - www.edizioniets.com

Registrazione presso il Tribunale di Firenze n. 4934 del 2/2/2000

Direttore responsabile: Pierluigi Meucci

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EDIZIONI ETS

Piazza Carrara, 16-19, I-56126 Pisa

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Distribution

PDE, Via Tevere 54, I-50019 Sesto Fiorentino [Firenze]

ISBN 978884673701-4

ISSN 1722-2206



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A Homeopathic Perspective on Tarantism and Music Therapy: Dr Núñez (1864)

Pilar León Sanz

Abstract: We show that tarantism was well known among the homeopaths in 19th century. Particularly, we analyse the book *Medical study of the tarantula venom following the Hahnemann method* (Madrid, 1864) published by José Núñez, one of the most important Spanish representatives of homeopathy during 19th century. We observe that the homeopathic perspective of tarantism accentuates vitalistic and empirical aspects, and is based on the extemporal analysis of earlier medical writings. We establish the sources on the tarantism in this period. Núñez maintained that music had a direct influence on organic structures such as the brain, as had been stated in previous centuries, but now he based the theory on his experience of the pathogenesis. The longest section of Núñez' treatise is dedicated to experiments with tarantula venom. The book is a milestone in the history of tarantism and music therapy with a new perspective which completes the lengthy course of this phenomenon to the present.

Keywords: Homeopathy, Music therapy, Tarantism, 19th century Medical History

Running head: A Homeopathic Perspective on Tarantism

A phenomenon with tradition in a new kind of medicine

Throughout the 18th century, at the same time as scientific medicine was being outlined, other medical theories rejecting conventional therapies and offering several alternatives appeared in Europe. Some of these trends and homeopathy in particular, are true medical systems and competed with academic medicine. Over time, some of these new doctrines, such as homeopathy, hydrology or naturism converged as it was believed that their methods were more in harmony with nature, because they were based on simple remedies more in accordance with the physiological laws of the body¹.

¹ A historiographical review of medical pluralism and homeopathy in Robert Jütte, *Introduction*, in Robert Jütte, Motzi Eklóf, Marie C. Nelson (eds.), *Historical Aspects of Unconven-*

The evolution of music therapy was different from the rest as it belonged to an older tradition which went back to Ancient Greek medicine. Over the centuries, music has been recommended as a cure for the bite of the tarantula. The use of the music called tarantella with therapeutic aims has its origins in the region of Puglia, in Italy, but was also well-known in other areas. Beginning in the 18th century, frequent medical treatises affirmed the reality of the spider bite, the noxious effects of its venom and the soundness of the musical therapy. At this time, much was written on music therapy and tarantism, not only by Italians, but also by many other Europeans including Spanish physicians. These authors did not merely take the tarantism phenomenon as a superstitious, magic or religious occurrence, but also as a natural event, which could be studied medically².

This article intends to study the links between homeopathy, tarantism and music therapy as established by one of the most important homeopaths in nineteenth-century Spain, Dr Núñez y Pernía, who dealt most widely with tarantism and music therapy in the eighteen hundreds in Spain.

Firstly we will review the principles of homeopathy and its introduction into Spain. Next we will analyse the theory of José Núñez y Pernía on tarantism and music therapy. Later we will refer to the *pathogenesis* of tarantula venom, as we believe the homeopathic use of this venom to be the principal contribution made by Núñez to the understanding of tarantism. However, we shall also see that the data is not as precise as would be expected from the experimental science of this period.

Homeopathy began in 1790, when Samuel Hahnemann (1755-1843) translated William Cullen's *Materia Medica*. Hahnemann, who was a translator as well as a physician, rejected Cullen's theory on the action of cinchona which, due to its high quinine content, was used in the treatment of *intermittent fevers*. The physician tested the effects of the use of cinchona bark on himself and concluded that any medical substance used on healthy people produced a state that was *identical* to the illness pro-

tional Medicine. Approaches, Concepts, Case Studies, EAHMH Publications, Sheffield 2001, pp. 1-9; Norman Gevitz, *Unorthodox Medical Theories*, in W.F. Bynum and R. Porter (eds.), *Companion Encyclopaedia of the History of Medicine*, Routledge, London 1997, vol. 2, pp. 603-630; Josef M. Schmidt, *The Origin, Diffusion and Development of Healing Doctrines in Medical History-Exemplified by Homeopathy*, "Sudhoffs Archiv", 91, 1, 2007, pp. 38-72.

² Music therapy in 18th century Spain, the relations between the European treatises and the influence of the Academies in the spreading of this practice is studied in Pilar León Sanz, *La tarantola spagnola. Empirismo e tradizione nel XVIII secolo*, Besa Editrice, Lecce 2008.

duced naturally. In the case of quina bark, it cured fever because it produced fever or a state similar to fever³.

Hahnemann formulated two axioms: the first stated that all effective medication produces a peculiar type of illness in the body, as “effective” medications would change organic functions. According to this principle, if you want to cure an illness – any illness – medication must be used that produces a similar *artificial* ailment. Thus, the cinchona that cures fever also produces fever in normal people; whatever produces headache can cure headache; whatever produces insomnia cures insomnia, etcetera.

Another important dogma in homeopathy refers to the use of minimal doses. This idea was developed by Hahnemann between 1798 and 1799, when he saw that a child who has scarlet fever was suffering from symptoms similar to those produced by belladonna, so he decided to treat the child with this substance in tiny doses. Apparently not only the child got better, but, moreover, other children to whom he administered belladonna did not catch the disease; this convinced him that the use of belladonna was not merely curative but also prophylactic. Hahnemann could not explain why these minimal doses were effective, but he did suggest, as a possible answer, that during illness the body was extremely sensitive to substances which, when healthy, had few effects.

Thus, in the early 19th century, the two fundamental pillars of homeopathy were set up: the therapeutic action of *similars* and the effectiveness of extremely tiny doses. The doctrine was extended and produced a system that Hahnemann published in the book *Organon der rationellen Heilkunde nach homöopathischen Gesetzen* (*The Organon of the Healing Art*), 1810. This work, the most important of his numerous writings, was soon re-edited and translated into most European languages⁴.

After 1828, Hahnemann dealt with chronic illnesses and postulated that all of them were caused either by syphilis, by “sycosis” (or venereal warts) or by “psora” or itching. The latter was the most important, as

³ There is abundant bibliography about this medical School and about his founder. For instance: Robert Jütte, *Samuel Hahnemann: Begründer der Homöopathie*, 2nd edition, Deutscher Taschenbuch Verlag, München 2005. Lester S. King, *La homeopatía: vida y obra de Samuel Hahnemann*, in Pedro Laín Entralgo (dir.), *Historia universal de la medicina*, Salvat, Barcelona 1973, vol. V, pp. 105-107.

⁴ About this book: Josef M. Schmidt, *200 years Organon of Medicine. A Comparative Review of its Six Editions (1810-1842)*, “Homeopathy”, 99, 4, 2010, pp. 271-277. The first Spanish translation was made from the 5th German edition, through the French translation: Samuel Hahnemann, *Exposición de la doctrina médica homeopática u organon del arte de curar*, by López-Pinciano, Imp. de M. Calero, Madrid 1835.

Hahnemann believed that many chronic illnesses, from asthma to cancer or kidney stones (urinary calculi) were the result of itching.

Hahnemann and the homeopaths promoted empirical studies on medicinal substances, as each substance had to be studied to establish its *pathogenesis* or the set of symptoms produced by a homeopathic medication in a healthy individual, which would, therefore, cure someone who is ill⁵. His followers created a huge amount of writings, books and periodical publications which spread the teaching and advances of this science.

Homeopathy was understood to be a complete medical system to be differentiated from academic medicine, which they called allopathic. This caused bitter animosity. Its critics ridiculed Hahnemann's theories on disease, physiology and the supposed effectiveness of extreme dilutions. But it must be admitted that, during the controversy, some homeopaths moderated their most extravagant claims.

On the other hand, there was no uniform praxis in homeopathic medicine. For example, during the 19th century, there were thousands of practitioners and disciples in the US who set up different medical schools, hospitals and societies. And there were frequent controversies between them⁶. Something the same happened in Spain: we know of the loud disagreements between homeopaths, and between homeopaths and *official* physicians; this was a characteristic of the introduction of homeopathy into this country.

Doctors Hysern and Núñez: the introduction of homeopathy in Spain

The first traces of the use of homeopathy in Spain date back to the late 1820s. The practice arrived in Spain due to the influence of French and Italian homeopaths. A good example of the power of French homeopathy was offered by the careers of two of the most important representatives of Spanish homeopathy at the time: Doctors Joaquín Hysern y Molleras (1804-1883) and José Núñez y Pernía (1805-1879)⁷.

⁵ Between 1811 and 1821 six volumes of Samuel Hahnemann, *Reine Arzneimittellehre* (In der Arnoldischen Buchhandlung, Dresden) were published, a compendium of drug experiments, which was translated into several languages. In Spain: Samuel Hahnemann, *Tratado de materia médica, y de los medicamentos homeopáticos*, trans. by López Pinciano, Ortega, Madrid 1835.

⁶ See John S. Haller, *The History of American Homeopathy: The Academic Years, 1820-1935*, Pharmaceutical Products Press, New York 2005.

⁷ The first publication on homeopathy in Spain appeared in the "Diario Oficial de Ciencias Médicas" in Barcelona (1827). And the influence of Dr Cosme de Horatius, physician to King of

Dr Hysern y Molleras studied medicine at the Real Colegio de Barcelona where, in 1828, he was assistant professor. In 1830, he became the Professor of Anatomy in Madrid. He was a prestigious surgeon, specializing in face and neck surgery and published a well-known *Tratado de blefaroplastia témporo-facial* (1834). In 1839 he moved to France as the Royal Doctor to the Infante D. Francisco de Paula and family, and spent three years in Paris. This stay caused his *conversion* to homeopathy, which he practiced until the end of his life. He enjoyed great prestige in Madrid as a homeopath. Apart from being the official physician to the royal family (1843), he held different posts which he used to promote homeopathy (Royal Counsellor, Inspector of Public Instruction). He edited the journal “El propagador homeopático” that echoed the controversies among the homeopaths (*pure* or *heterodox*) and the allopathic physicians. When José Núñez, his homeopathic rival passed away (1879), he was appointed President of the Sociedad Hahnemanniana Matritense⁸.

The career of José Núñez y Pernía was more controversial⁹. An aristocrat, he studied Law and began ecclesiastical studies which he cut short for political and personal reasons. He moved to Bordeaux where he made contact with homeopathy and began his studies of Medicine. He was accused of quackery in France and so had to return to Spain. Amid a certain controversy, he finished his studies of Medicine in Madrid, and did his Ph.D. in Barcelona. A. Albarracín Teulón emphasises three points in Núñez’ homeopathic line: intense clinical exercise, his influence on the promotion of the incorporation of homeopathy into the system and the foundation of homeopathic institutions. In fact, Núñez successfully practiced homeopathic medicine in Madrid until his death; he was also the

Naples who arrived in Spain in 1828 has been described. Studies on the history of homeopathy in Spain have followed similar historiography lines as those in other countries. Here of special interest are the publications by Agustín Albarracín Teulón or conducted by him, particularly: Agustín Albarracín Teulón, *La homeopatía en España*, in *Historia y medicina en España. Homenaje al Profesor Luis S. Granjel*, Junta de Castilla y León, Valladolid 1994, pp. 215-235.

⁸ Cf. Agustín Albarracín Serra, *Biografía del doctor Joaquín Hysern y Molleras*, “Medicina e historia”, Fundación Uriach, 45, 1992, pp. 1-16.

⁹ There is no a complete biography about Dr Núñez, but his life has been the subject of several studies: A. Albarracín Teulón, *La homeopatía en España*, cit., pp. 215-235; Manuel Toscano Aguilar, *Homeopatía española: un aspecto de la historia de la medicina en el siglo XIX*, Universidad Central, Madrid 1957; Andrés José Ursa Herguedas, *Tomás Pellicer y la homeopatía madrileña del siglo XIX*, Universidad Complutense de Madrid, Madrid 1992; Antón Cortés Félix, *125 Aniversario del Comienzo de la construcción del Instituto Homeopático y Hospital de San José*, “Recopilación Histórica”, 6, 1998.

Royal Doctor of Isabel II and the Infante Sebastián, and among other awards, received the title of Marquis of Núñez (1864). This physician was the founder and president of the Sociedad Hahnemanniana Matritense (1845)¹⁰, whose journal was “El Criterio Médico, Boletín Oficial de la Sociedad Hahnemanniana Matritense”¹¹. Dr Núñez, finally, founded and directed the homeopathic hospital of San José (1873), the only homeopathic institution in the city, which he partially financed from his own pocket¹². On the other hand, J. Núñez was well known among his European colleagues because he attended and was President of various international homeopathic conferences¹³.

Therefore we can state that Dr Núñez – more than Dr Hysern – had a fundamental role in the development of homeopathy in Spain, particularly during the period marked by the vitalistic mentality of the school.

Tarantism and music therapy: the state of the question

Although Núñez never saw a case of tarantism in person, he published, in Madrid (1864), at the peak of his fame, the volume *Estudio médico del veneno de la tarántula según el método de Hahnemann* (*Medical study of the tarantula venom following the Hahnemann method*). This work is easily accessible and there is a facsimile edition¹⁴. Two years later, in 1866, a

¹⁰ About this institution: M. Encarnación Lorente Miñarro, *La Sociedad Hahnemanniana Matritense a través de sus órganos de expresión*, Universidad Complutense, Madrid 1987.

¹¹ “El Criterio Médico” (1860-1890) was the principal Spanish homeopathic journal in the 19th century. It was the extension of the “Boletín Oficial de la Sociedad Hahnemanniana Matritense” (1846-1851) and the “Anales de la Medicina Homeopática” (1851-1857). Cf. Juan José Fernández Sanz, *La prensa homeopática española en el siglo XIX*, Federación Española de Médicos Homeópatas, Madrid 1999.

¹² The homeopathic physician Anastasio García López (1823-1897) published the history and development of this institution in 11 articles published in “Boletín Clínico del Instituto Homeopático de Madrid”, 1, 1881, pp. 3-5, 21-24, 40-43, 53-9, 70-74, 85-91, 104-108, 117-121, 130-7, 150-155, 355-360 and 365-374. See also Félix Antón Cortés, *El Instituto homeopático y hospital de San José, de Madrid, en el 125 aniversario de su inauguración oficial*, n.p., Madrid 2003.

¹³ Núñez was Honorary President of the International Homeopathic Conference held in Paris in 1867; he also attended the Universal Homeopathic Convention held in Philadelphia (1876). Cf. A. Ursa Herguedas y A. Albarracín Teulón, *Tomás Pellicer y la homeopatía madrileña*, Universidad Complutense de Madrid, Madrid 1992, pp. 363-364.

¹⁴ José Núñez, *Estudio médico del veneno de la tarántula hispánica según el método de Hahnemann, precedido de un resumen histórico del tarantulismo y tarantismo y seguido de algunas indicaciones terapéuticas y notas clínicas*, Vicente y Lavajos, Madrid 1864; reprod. facs. n.p., Sevilla 2000.

French version was published by Jean Josemed Perry (1812-1877)¹⁵. The homeopathic experimentation with the tarantula venom was carried out from 1846, a significant date for tarantism and Spanish homeopathy because of two circumstances: on the one hand, Doctor Carlos Mestre y Marzal (1818-1876) had just published several articles in the “Boletín de Medicina, Cirugía y Farmacia” dealing with several cases of tarantism which may well have drawn Dr Núñez’ attention to the phenomenon¹⁶. On the subject of homeopathy, in 1845, the Sociedad Hahnemanniana Matritense was founded and scholars coincide in considering this date as the zenith of the movement in Spain.

From the beginning, Núñez refers to one of the main sources of Spanish tarantism in the 18th century: the book by Francisco Xavier Cid, *Tarantismo observado en España con que se prueba el de la Pulla, dudado de algunos y tratado de otros de fabuloso y memoria para escribir la Historia del insecto llamado tarántula, efectos de su veneno en el cuerpo humano y su aplicación como remedio de varias enfermedades* (1787). As we have seen before, Cid’s work is ahead of those by other physicians who, in the 18th century, dealt with the bite of the tarantula, due to his rigorous approach to the issues and because he includes 35 clinical records of patients with tarantism who received musical treatment¹⁷.

The book by Núñez, *Medical study of the tarantula venom following the Hahnemann method*, is divided into four sections: the first is “an extensive historical account of the different periods tarantism has gone through, with care to emphasise the work of Spanish physicians and writers [...]. In the second part we find the natural history of tarantulas [...].

¹⁵ Id., *Étude médicale sur le venin de la tarentule d’après la méthode de Hahnemann, précédée d’un résumé historique du tarentulisme et du tarentisme et suivie de quelques indications thérapeutiques et de notes cliniques*, trans. and ed. by Jean Josemed Perry, Baillière, Paris 1866. The homeopathic physician Jean Josemed Perry was Secretary of the *Societe Hahnemannienne de Paris*. As we see later, he was part of the Núñez’ team during the homeopathic experimentation with the tarantula venom. Perry published various articles and clinical notes in the *Bulletin de la Société de Médecine homoeopathique de Paris*. About this author: Charles Edmond, *Notice biographique sur le Dr Perry*, Librairie générale, Paris 1877.

¹⁶ Carlos Mestre y Marzal, *Sobre tarantulismo y los efectos de la música en su curación*, “Boletín de Medicina, Cirugía y Farmacia”, 7 July 1834, 7 September 1837 and 7 March 1843. Later on he published the three articles in Carlos Mestre y Marzal, *El tarantulismo o sea descripción de la enfermedad producida por la picadura de la tarántula y su método curativo*, Madrid 1843. About this author cf. “Archivo Biográfico de España, Portugal e Iberoamérica”, I, 602, 98-100.

¹⁷ About the author cf. Pilar León Sanz, *Medical Theories of Tarantism in Eighteenth-Century Spain*, in Peregrine Horden (ed.), *Music as Medicine*, Aldershot, Ashgate 2000, pp. 273-292; Pilar León Sanz, *Literatura médica española sobre musicoterapia en el siglo XVIII*, “Nassarre”, VII, 2, 1991, pp. 73-155.

In the third, we will consider the medical knowledge of tarantulum and tarantism [...]. The fourth and final section will refer to the *pathogenesis* of the tarantula, and will include the symptoms obtained through the numerous experimentations carried out, the observations supplied by the clinic and the potential therapies”¹⁸. The broad review of the book is not original as it follows what Cid said almost word-for-word when dealing with the history of tarantism, when describing the clinical pattern produced by the tarantula bite, and when pointing out the effects of music.

The central role played by Baglivi in the approach to tarantism

Like Cid, Dr Núñez begins the description of tarantism by citing Dioscorides (1st century)¹⁹ who, “meticulously describes the local symptoms referring to the bitten part, and the general ones from stupor, coldness, intense pain, convulsions and difficulty in breathing, to the rare, special ones in some cases, such as the semi-cataleptic states”²⁰; and goes on to refer to the classical authors who treated the phenomenon (Pliny, Paul of Aegina, F. Epifanio, P. Mattioli, A. Kircher, P. Niremberg, Oliva del Sabuco, Pedro Mejía, Pluche, Geoffroy...). It is a summary of the different periods in tarantism, orderly, but clearly not original.

The central role given by Núñez to G. Baglivi also probably comes from Cid and from Mestre, as he divides the history of tarantism into pre- and post-Baglivi, and dedicates a whole chapter to a summary of the famous opuscle written by Baglivi, *De anatomi morsu et effectibus tarantulae* (Rome, 1696)²¹.

Núñez’ reading of Baglivi’s tarantism is influenced by Cid as he reproduces his criticisms: he coincides in disparaging the fact that tarantism should only occur in Pulla or Apulia, and in condemning the most startling effects of tarantism (attraction to colours, nymphomania...) described by Baglivi²².

The literal, perhaps not very critical way in which he deals with the sources can be seen when, at another point, he admits that, although they

¹⁸ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., pp. III-IV.

¹⁹ Pedanius Dioscorides of Anazarbos, *Acerca de la materia medicinal y de los venenos mortíferos*. Critical edition by C. Dubler, Barcelona 1955; reprod. facs. Instituto de España, Madrid 1968.

²⁰ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 10.

²¹ Ivi, Chapter 2: “Resumen de los escritos sobre la tarántula hasta don Francisco X. Cid, y en especial de la obra *Anatome, morsu et effectibus tarantulae*, por Baglivio”, pp. 14-21.

²² Ivi, pp. 18-19.

are surprising, they cannot reject “certain complaints such as hysteria, hypochondria, nymphomania, nostalgia and many monomanias and neuroses”. Even if one wishes to reject them “as fantastic illusions”, we must remember that such phenomena still occur in the present day²³.

Although he attempts to offer new data on the physicians in Spain who studied tarantism after Cid, he merely refers to Manuel Irañeta²⁴, Bartolomé Piñera²⁵ and the cases published by the afore-mentioned Carlos Mestre y Marzal.

Dr Mestre comments that he had heard his professor Diego de Argumosa (1792-1865) speak of the poisoning produced by the bite of a tarantula²⁶, and describes three cases he observed, another observed by Doctor José de la Calle y Fajardo, two by Doctor Manuel Cuenca, one by Doctor Juan Lozano and another by Doctor Juan González. The patients were bitten, as in most cases described in the 18th century, in La Mancha, specifically in the area of Campo de Calatrava, where Mestre was born and spent his summers. All the cases of tarantism he mentions were cured by music therapy.

Finally, Núñez quotes from the translation done by Dr Francisco Méndez Álvaro (1806-1884)²⁷ of *Patología externa y Medicina operatoria* by the Frenchman, Vidal (1846)²⁸. In the chapter on the wounds with inoculation, Méndez Álvaro includes a description of tarantism: “The lasting seriousness of the complaint called *tarantulism* has now been proven, which, if not properly corrected may have fatal consequences for the organism. The safest therapy is found in music, not because of the material

²³ Ivi, pp. 95-96.

²⁴ Manuel Irañeta y Jáuregui, *Tratado del tarantismo o enfermedad originada del veneno de la tarántula, según las observaciones que hizo en los Reales Hospitales del Cuartel General de S. Roque*, Madrid 1785. About this physician and this book cf. P. León Sanz, *Literatura médica española*, cit., pp. 116-120.

²⁵ Bartolomé Piñera y Siles, *Descripción histórica de una nueva especie de Corea o baile de S. Vito originaria de la picadura de un insecto...*, Madrid 1787. About this physician and this book: P. León Sanz, *Literatura médica española*, cit., pp. 124-131. Probably Núñez knew this book through the Dr C. Mestre.

²⁶ Diego Argumosa was a Professor of Clinical Surgery in Madrid; he was the first to use anaesthesia and chloroform in Spain.

²⁷ Francisco Méndez Álvaro developed medical journalism; he was founder of the Spanish Society of Hygiene and of the medical Journal *El Siglo Médico*. He wrote *Breves apuntes para la historia del periodismo médico y farmacéutico en España*, E. Teodoro, Madrid 1883. Cf. José Luis Fresquet, *Francisco Méndez Alvaro y las ideas sanitarias del liberalismo moderado*, Ministerio de Sanidad y Consum, Madrid 1990.

²⁸ Augustus Vidal de Cassis (1803-1856) was a French surgeon. Doctor in 1828 (Paris), he was sent to Aix-en-Provence to treat cholera and he remained all his life there as surgeon of the Hôpital du Midi. Vidal published a number of observations and memoirs.

nature of the dance, but thanks to the special, transcendental and profound action of music on the human body, both in sickness and in health”²⁹. Méndez Álvaro also refers to the medical historian Salvatore de Renzi (1817-1872)³⁰ and the cases of tarantism he published in the “Gazette medicale” (1833) where he states that “the venom of the tarantula affects the nervous system by producing a type of hypochondriac monomania, commonly called tarantism”. For Renzi, tarantism was an exaltation of fantasy and the imagination³¹.

Finally, the work by Dr Núñez contains numerous non-critical references from the *Étude sur le venin des Arachnides* written by Charles Ozanam (Paris 1856). Charles Ozanam (1824-1890) was an important French homeopathic physician, who is frequently quoted in the Spanish homeopathic journal “El Criterio Médico”³². Ch. Ozanam, following Hecker³³, speaks of the epidemic of tarantism as being characteristic of Puglia and other Italian regions, and associates tarantism with Abyssinian Chorea or Tigretier (so-called because it occurred in the province of Tigre)³⁴.

Núñez concluded his historical review by stating: “We must say that what we have outlined in this chapter has been proven by numerous observations gathered and published by Baglivi, P. Rodríguez, Saint-André, Cid, Irañeta, Piñera, Mestre, Lozano, Cuesta, Renzi, etc.: 1st, the existence of tarantulism produced by the bite of the insect called the tarantula; 2nd, the modification of this special state generally by means of music, and in extremely exceptional cases, by means of diffusive, commonly harmful medications; 3rd, the ailment may return without new cause sooner or later, and there may also be the successive appearance of serious, even deadly chronic states”³⁵.

²⁹ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., pp. 39-40.

³⁰ Salvatore de Renzi was member of the Naples Academy. He published the Salernitan writings: August W.E.T. Henschel, Charles Daremberg, Salvatore de Renzi (a cura di), *Collectio Salernitana: ossia documenti inediti, e trattati di medicina appartenenti alla scuola medica Salernitana*, Dalla tipografia del Filiatre-Sebezio, Napoli 1852-1859.

³¹ Salvatore de Renzi, *Observazioni sul tarantismo di Puglia*, “Resoconti dell’Accademia medico-chirurgica di Napoli”, 1832, p. XX: “con l’esaltamento della fantasia e le violente passioni che son proprie di quest’età”.

³² Charles Ozanam submitted cases and varied articles to numerous homeopathic publications, such as, for example, “British Journal of Homeopathy”.

³³ About this autor and his tarantism theory cf. Justus Friedrich Karl Hecker, *Danzimania: malattia popolare nel Medioevo*, a cura di Giorgio di Lecce, 2001, p. 75.

³⁴ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 43.

³⁵ Ivi, p. 58.

The previous references show that during the 1800s, in Spain, there was still an Italian influence on issues referring to tarantism and music therapy, although in the field of homeopathy the French authors had a greater impact.

We also see that Núñez associated the understanding of tarantism with the alternative view of official medicine, and even considered that allopathy was incapable of understanding tarantism or music therapy as it lacked a naturalist perspective. Perhaps this is why he did not quote from Dr Mateo Orfila (1787-1853)³⁶, who in his *Traité de Médecine Legale* (Paris, 1836) did refer to tarantism: “We believe that the dangers caused by the bite of these animals (tarantulas) have been overly exaggerated. All the tremendous tales about the tarantula, based on ignorance and superstition should be forgotten”³⁷. Núñez must have known Mateo Orfila personally, as when the Parisian professor visited Madrid in 1846, as he had been awarded a Doctorate by the Government, the event was celebrated with a multitudinous banquet at the home of Dr Hysern, with whom Núñez had an excellent relationship at that time, as they had just jointly founded the Sociedad Hahnemanniana Matritense³⁸. Nor did Núñez take into account another kind of sources, such as the Royal Academy’s memories, where one can find references to Spanish tarantism from the period.

The advances of Natural Sciences as support for tarantism and homeopathy

One of the most outstanding aspects in the view of the homeopath, Núñez, is the analysis he carries out of the different types of tarantulas, their natural history and the effects of their bite. He writes two chapters on these subjects. In one he describes “the genus *Lycosa*, family Theridiidae and breed of the tarantulas” and, above all, gives an extensive description of the Hispanic Tarantula. Once again, the approach is not innovative because both G. Baglivi and Cid gave important descriptions

³⁶ Mateo Orfila (1787-1853) was a Spanish-born French toxicologist and chemist, the founder of the science of toxicology. Among his books: *Tratado de los venenos* (1813-1815); *Lecciones de medicina legal* (1821-1823); *Nuevo diccionario de términos de medicina y cirugía* (1833).

³⁷ Mateo Orfila, *Lecciones de medicina legal*, Paris, 1821-1823, vol. III, p. 506. Regarding the question we are interested here, Cf. Josep Corbella, *La Psiquiatría en la obra de Orfila*, in Edelmira Domenech, Jacinto Corbella, Dídac Parellada (eds.), *Bases históricas de la psiquiatría catalana moderna*, Promociones y Publicaciones Universitaria, Barcelona 1987, pp. 65-70.

³⁸ A. Albarracín Serra, *Biografía del Doctor Joaquín Hysern y Molleras*, cit., p. VII.

of the tarantula types: this is a key issue in the argument on the existence of tarantism. But his contribution adds a broader classification, based on the development of zoology in the 19th century. Thus he refers to the Apulia Tarantula, the Narbonnese Tarantula, the Greek, the Carolinian, the Georgian and the Suspect Tarantulas. The sources are the works of the naturalist Charles-Athanase Walckenaer (1771-1852)³⁹ and the physician and naturalist Léon Jean Marie Dufour (1780-1865), to whom, according to Núñez, we owe the best description of the Hispanic Tarantula⁴⁰.

This interest in the zoological characteristics of the Hispanic Tarantula is due to the fact that he proposes to use its venom as a homeopathic treatment. Thus his insistence on differentiating it and relating it to the other species, a point which Chapter X discusses. According to Núñez, “very numerous species make up this genus, the most natural of all those of its kind. The species are so harmoniously alike, and their affinities and similarities are so intimately linked, that it is very difficult to choose characteristics to distinguish them, and so to establish the necessary subdivisions”⁴¹.

Moreover, says Núñez, “not only the Pulla or Hispanic tarantulas produce certain effects on the human organism: all the species must produce them a more or less analogously, but not all of them have been studied”⁴². He points out that it is common for spider venom to produce “copious sweating”. Besides, “they all noticeably excite the cerebrospinal nervous system; whether it be the irregular, convulsive and semi-paralysing agitation of the limbs, called *scelotyrbo* by F. M. Marmochi when speaking of *latrodectus*, or the clonic convulsion of tarantulism, in the end we always see the exaggeration and perversion of the natural functions of the sensorium”⁴³. Referring to spider venom he emphasises that the symptoms it produces may be “periodical by days, by weeks and even by years” which may have interesting therapeutic appli-

³⁹ Charles-Athanase Walckenaer, *Histoire naturelle des insectes: Apteres*, Librairie encyclopédique de Roret, Paris 1837, vol. 1, p. 280.

⁴⁰ Ivi, p. 69.

⁴¹ Ivi, p. 61.

⁴² Ivi, p. 102.

⁴³ Ivi, p. 109. This point comes from Charles Ozanam: “Mais ce qu’il y a de remarquable dans les narrations de Toti de Marmocchi, que nous avons rapportées dans la première partie de notre travail, ce sont ces phénomènes d’agitation choréique et de *scelotyrbe* qui, sans aller jusqu’il la danse, frappent l’imagination par leur singularité et qu’on ne peut mieux comparer qu’à une chorée intense”. Ch. Ozanam, *Étude sur le venin des arachnides et son emploi en thérapeutique*, Baillière, Paris 1856, p. 67.

cations”. He also adds a description of the peculiarities of the venom according to the family: that of the *Lycosa de Saco* is applied to wounds and ulcers as it aids healing; the *Tegenaria medicinalis* is used in Philadelphia as a weaker narcotic than opium and as a remedy for *intermittent fevers*; and it is also used as a vesicant and a substitute for the Spanish Fly; there is a tarantula in Mexico with sudorific effects that cures ailments of the skin; etc.⁴⁴

Tarantulism versus tarantism

Francisco Xavier Cid had realised the polysemy of the term tarantism, as it is used both for the symptoms caused by the tarantula bite and the effects produced by music. Núñez considers that it was *indispensable* to distinguish between the two situations, so he proposes the use of the terms tarantism and tarantulism.

He takes tarantulism to mean “the complaint that originates with and immediately follows the bite of a tarantula, before the art intervenes”; while tarantism “means the whole of the phenomena which follow from the use of music for those bitten”. And he adds “we shall express this difference in a few words, stating that the former term includes the pure symptoms of the tarantula venom in a healthy man, and the latter the common symptoms of the venom and the music, and of other means used to control the *primitive* functional upset”⁴⁵.

Núñez was a loyal, convinced disciple of the Hahnemann doctrines⁴⁶. In his opinion, homeopathy was the heir to the Hippocratic method which holds that observation – rational and subject to determined fixed laws – is the basis of medicine. He also rejects the possibility of understanding the essence of the illness; we can only understand the symptoms produced by an imbalance in the mysterious force of life. This can be seen in the explanation of *tarantulism*.

In the description of the clinical pattern he follows Cid and, like him, differentiates between the local and general symptomatology. The local symptoms are similar to that produced by any bite and “one immediately

⁴⁴ The references to the *Lycose Tarentule* and the *Tarentuloïde Philadelphia* also come from Ch. Ozanan, *Étude sur le venin des Arachnides*, cit., pp. 4-5.

⁴⁵ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., pp. 71-72.

⁴⁶ J. Núñez, *El método en medicina*, “El Criterio Médico”, I, 1860, pp. 130-1. We are following the study on the Núñez’ pathological and therapeutical theory by A. Albarracín Teulón, *La homeopatía en España*, cit., pp. 215-235.

notices a kind of tingling or irritation, a strange sensation of cold, of numbness or stupor, which begins at the site of the bite and spreads, in different ways, depending on the case, to the whole body”⁴⁷. Among the general symptoms he points out a first phase in which “the kind of stupor or dullness which was felt at the bitten part spreads all over the body; there is a sensation of cold, distressing discomfort, collapsing at times with mortal anxiety, agitation with slight convulsions, and at other moments complaining with a pitiful and sad voice, of oppression in the chest close to the heart that causes angst and sighing; there are also vertigos and such great faintness that usually lead the sick person home in an apparently dying state”⁴⁸. After the first symptoms, the second phase appears with symptoms that affect the whole system and impress because of the gravity of the pattern. This is when, according to Núñez, music therapy must be applied, because if it is not done, the pattern advances towards the *Third period* or *chronic tarantulism*, when the patients are open to a “profound melancholy, from which it is almost impossible to rescue them (...) apart from the heart oppression, vertigos”, and other symptoms similar to those of other chronic illnesses, “with which they may indeed be related”⁴⁹.

The tarantulism described coincides with what was explained in the preceding treatises, but here we see Núñez’ ascription to vitalism, understood in the Hahnemann manner. “Illness – he writes in 1866 – is a phase of existence, or an abnormal state for the individual, which begins with the aggression of the morbid cause, transmitted by the organs of vital force, which, by changing in the sense of the impression received, makes changes in all the movements, acts and phenomena of the organism, from the most elevated to those of the atoms, beginning by being general and perhaps with the symptoms, sensations and lesions later becoming localized in certain organs, but still continuing to be a general illness, or being very limited, until it becomes compatible with the relative normality of the remainder of the organism; and in its evolution and course may or may not provoke, with the same vital force and the law of elective affinities, critical movements which on occasion bring about the spontaneous cure of the illnesses or on the contrary such healthy reactions are lacking, and everything must be done with the assistance of therapeutics and hygiene”⁵⁰.

⁴⁷ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 72.

⁴⁸ Ivi, pp. 72-73.

⁴⁹ Ivi, p. 75.

⁵⁰ J. Núñez, *Algunas reflexiones sobre patología*, “El Criterio Médico”, VII, 53, 1866, pp. 79-80.

Although in theory Núñez remained faithful to the etiological doctrine of Hahnemann, which is based on the *psora, syphilitic and psychotic* “miasmas”, this explanation does not appear in the study on tarantism. However, in the periodization of tarantulism and tarantism, we notice Núñez’ pathogenetic thinking which differentiates between metastasis and crisis. In the former, according to the author, the pathological secretion may appear in other tissues, in other organs apart from the skin; and then sometimes severe, lasting illnesses which are extremely resistant to treatment are produced⁵¹. A clear point in tarantism.

However the concept of *crisis* has more to do with the therapeutics. “As every illness is an essentially vital phenomenon, it can only be defeated by agents which have a direct action on life”⁵².

The most important point, for Núñez, is to use “the sweet and curative influence of music – the only remedy with which the medicine of twenty-three centuries can cure the sickness”⁵³. Indeed, “the music produced by instruments or simply by the human voice, changes the expression of the bitten and modifies their symptoms; generally the guitar and the violin are used, in some cases *dulzainas* and the tabor, but presumably the same results would be shown by the piano and other non-tested instruments”. He coincides with Cid when he states that “Generally the course of tarantulism is quick, because, if music is used in time, other curious phenomena occur and the sickness passes more or less rapidly; but on occasion the cure is incomplete because of tardiness; the affected individuals are left with an irresistible inclination to dance; as soon as they hear music the attack is repeated in a certain period, for example a year later and even on the same day as the previous one”⁵⁴.

The two circumstances he refers to are: “1.a, not all sonatas (music) work equally to modify the effect of the tarantula venom; 2.a, the time taken for this modification to appear is variable”⁵⁵. All of which coincides with the parameters established earlier.

The action of the music that Núñez proposes is of a physical nature: the music acts directly on the brain centres and its effects are transmitted

⁵¹ J. Núñez developed this doctrine in one of his papers at the Homeopathic Congress in Paris (1851) and in articles published later in “El Criterio Médico”. Cf. A. Albarraçín, *La homeopatía en España*, cit., p. 228.

⁵² J. Núñez, *El método en medicina*, “El Criterio Médico”, I, 1860, p. 140.

⁵³ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 1.

⁵⁴ Ivi, p. 75.

⁵⁵ Ivi, p. 80.

along the nerve channels. He also insists, as do the other 18th-century authors, that the symptoms produced by the music are similar to those of tarantism. We shall see how this aspect influences the description of the *pathogenesis* of the tarantula venom, which is something that contrasts with that vitalism expressed by Núñez in other writings⁵⁶.

Núñez restates Hippocratism, and simultaneously follows other Spanish treatise writers on tarantism, when he complains about “how little basis there is for the disbelief that some physicians who are overly attached to their formulas and routine practice have shown for treatment with music”⁵⁷.

Dr Núñez believed that the law of *similia similibus curantur* could be applied to music therapy, as it produces similar symptoms to tarantism. Music therapy was a simple one, which had no harmful effects, and brought about results, according to the preceding medical literature, which were superior to those obtained with the official medical treatments, for which reason he considered it was the best option for tarantism: “Prudence however councils using it while there is no other advantageous replacement, which there is not, as the diaphoretics used as a more rational measure, cause sweating but do not radically cure the unhappy sufferer of the tarantula bite”. But music, as medication, would be the agent destined to dissipate the disharmony created in the organism by the action of the poison responsible for the illness (or for the symptoms).

Núñez concludes that “tarantism is a specific ailment caused by the inoculation of the venom of the tarantula, characterised by the rapid development of very serious and special symptoms, such as those produced in the intense dynamic changes in the nerve centres, which changes are followed by the dulling of the life forces, for which the only safe remedy for the moment, if used in time, is music”. He does however continue: “We do not know why the tarantula causes this specific sickness, but we do know that it is impossible to mistake it for another”⁵⁸. Finally, he rejects music-maniac tarantism, as it is “an exaggerated expression of the ideas and sensations that habitually concern the individual; it is a passion for music to such a point that only through it do the listlessness, dullness

⁵⁶ In other publication, Núñez explains, regarding the treatment “it is necessary to direct that [vital] force when attempting to change these phenomena and their modifications, so it follows that, as the vital force driven by certain modifications is what causes illness, when stimulated by others, it cures”. José Núñez, *El método en medicina*, “El Criterio Médico”, I, 1860, p. 141.

⁵⁷ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 90.

⁵⁸ *Ivi*, p. 57.

or fury to which the patient is subject give way, while with its use we see the reign of tranquillity, joy of the spirit and health”⁵⁹.

Pathogenesis of the tarantula vs. symptomatology of tarantism

The lengthiest part of Núñez’ treatise deals with experimentation with the tarantula venom. The author, following Ch. Ozanam verbatim, points out the widespread tradition of using venom as medication and explains – contrary to the “official” standards such as those proposed by Claude Bernard – that the bite of an insect was very similar to the inoculation of a venom (without specifying which one)⁶⁰.

For Núñez, the therapeutics has a theoretical aspect and a practical one; and following Hahnemann he defines medication as: “any substance capable of modifying dynamics or the organism virtually, giving rise to the development of sensations and movements which are to a certain extent analogous to those brought about by the agents causing morbid effects: *similia similibus curantur*”⁶¹. The medication must be given in several, always dynamized forms, and never in enormous allopathic dosages, so “its genuine, pure significance must be studied, in order to scientifically interpret the phenomena it presents to simple observation, with the criterion that must guide the philosopher and physician”⁶².

Núñez’ *pathogenesis* of the venom of the Hispanic tarantula is based on the observations he carried out with other homeopathic physicians over a period of 15 years. The team of ten (Spanish and French) physicians studied the effects of tarantula on “persons of different classes and circumstances; thus tarantula has been experimented with in several provinces in Spain and France; it has been used on men of different ages, temperaments and characters, and on adolescent and adult women and women at a critical age”. Moreover, to add more rigour to the experiments “the observers were unaware of the name of the medication”⁶³.

⁵⁹ Ivi, p. 100.

⁶⁰ Ch. Ozanam, *Étude sur le venin des arachnides*, cit., pp. 52-53; J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 112.

⁶¹ J. Núñez, *Algunas reflexiones sobre terapéutica homeopática*, “El Criterio Médico”, IX, 1870, p. 29.

⁶² Ivi, p. 31.

⁶³ The researchers were: seven physicians (Drs Suarez Monge, Fernández del Río, Tejedor, Cuesta, Dubost, Perry, Hernández Ros, Iturralde, Álvarez González); with the assistance of “several women”. J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 183.

As maintained by Dr Núñez, the medication must be dynamized so that it can effect an indirect efficient action. That is, it must be subtle and impalpable, material and spiritual simultaneously. In his opinion, “experience teaches that matter is dynamized by prolonged grinding and succussions, which fact cannot be denied”⁶⁴.

In the preparation of the drug, the whole live animal was used: the tarantula was ground up with lactose (“milk sugar”), was allowed to dry and then the globules were prepared with a proportion of “one grain (of venom) to 99 of milk sugar (lactose), and four successive dynamizations by the ordinary method”. The experiments were carried out with globules of the 6th and 12th dynamization “and only one 40-year-old woman, who was extremely sensitive and impressionable, used the third”⁶⁵.

They applied doses “of 40 to 100 globules per day, from the 6th or the 12th, taken in three or two doses. As soon as the symptoms began to appear the medication was suspended until they stopped, and on most occasions the first doses were sufficient to obtain all the symptoms possible in each case”⁶⁶.

The publication refers to the description of numerous symptoms, which are classified into the following sections: I. General symptoms and conditions; II. Intellectual faculties, morale, sleep; III. Fever; IV. Skin; V. Head and face; VI. Digestive system; VII. Genito-urinary system; VIII. Respiratory and circulatory systems; IX. Trunk and limbs⁶⁷.

However, this *pathogenesis* is difficult to analyse because the description lacks references to the people, the times or the doses used to bring about the symptoms. Moreover, the classification does not follow medical criteria. So, for example, in section IV Skin, he refers to “Sharp pain in different parts of the body, at night”, or, in the eyes, “Visions of very deformed animals, which are frightening”, etc. This can be explained, in part, because, according to Núñez, in the same way as the symptoms of a disease are not the whole disease, neither is the correlative presentation of the symptoms produced by a medication, placed in order, the whole of the medication⁶⁸.

On the subject studied in this article we must underline:

a) The use of spider venom as a homeopathic drug is not original. In fact, among homeopathic drugs before Núñez’ observations, we can find

⁶⁴ J. Núñez, *Algunas reflexiones sobre terapéutica homeopática*, cit., p. 30.

⁶⁵ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 115.

⁶⁶ *Ibid.*

⁶⁷ Ivi, chapter XI “Experimentación pura de la tarántula.-Modo y forma en que se ha hecho. Cuadros de síntomas recogidos”, pp. 115-174.

⁶⁸ J. Núñez, *Algunas reflexiones sobre terapéutica homeopática*, cit., p. 30.

some derivatives of snake venom, and the homeopathic physician Constantine Hering formulated the *pathogenesis* of the venom of the Theridion Spider of Curaçao (*Theridion Curassavicum*)⁶⁹. Núñez research was well-known to the contemporary homeopathic community⁷⁰.

b) The *pathogenesis* of the *tarantula* coincides with tarantism. It was thought that the drug produced “damage to the central nervous system, so characteristic of the tarantula, as can be seen in the disorders of enervation marked by shivers, muscular palpitations, convulsions, spasms, loss of strength, syncope, paralysis, rigidity, pressive, contusive, dislacerative, lancing and intermittent pains, etc., as a result of this primordial alteration”⁷¹.

c) In the analysis of the symptoms, Núñez and his team also introduced music and found that the symptoms of morale such as “Sadness, affliction and bad humour” were relieved by the music⁷², which ratifies the effectiveness of music therapy in the case of tarantism.

d) Perhaps the different, and sometimes contradictory symptoms included in the *pathogenesis* stem from the fact that Núñez thinks that “By direct action or by reflex or sympathetic action, the blood system is weakened by the excessive contractility of the fibre of the arteries and vascular tone, and by the qualities of the blood, which later give rise to haemorrhages, discolorations and ecchymosis: The gastric system also changes with appetite disorders, fierce thirst, nausea, vomiting, colic, diarrhoeas, alterations in the circulation of the portal vein, etc.: the lymphatic system with oedema and tumefaction of the skin, with ulcerations and different rashes, and principally with modification of the look and secretions of the

⁶⁹ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 107. Proof of the use of spider venom is Hering’s request for it published in “El Criterio Médico”, 1, 1851, p. 127. Constantine Hering (1800-1880) was one of the pioneers of homeopathy in the United States of America and helped to disseminate homeopathy there. He founded the first homeopathic school. From 1845 until 1869 he filled the chairs of institutes of medicine and *materia medica* in the Philadelphia College of Homeopathy. He devoted much study to cures for the bites of venomous serpents and for hydrophobia, and developed many of Hahnemann’s theories. Cf. J.M. Sillero F. de Cañete, *La homeopatía en el siglo XIX*, “Seminario médico”, 56, 1, 2004, pp. 65-80.

⁷⁰ Dr Charles Ozanam knew the experimental work that Núñez was doing: “Nous croyons savoir que MM. les docteurs Núñez, de Madrid, et Perry de Paris, préparent en ce moment un pathogénésie de la tarentule; nous serons heureux si nos recherches peuvent leur être utiles et servir à compléter une étude qui manquait jusqu’à ce jour à la thérapeutique”. Ch. Ozanam, *Étude sur le venin des Arachnides*, cit., p. 55. This quotation shows Dr Núñez was well known among his European colleagues.

⁷¹ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 189.

⁷² Ivi, p. 191.

mucus membranes”⁷³. Moreover, according to Dr Núñez, it was essential to see the first dynamic modifications of the drug to understand the actions deriving from them. In other words, the physician’s intelligence does not comprehend the elective sphere of its action or fundamental indications because “both the illness and the drug have their own characteristic physiognomy”⁷⁴.

The specificity of tarantula in the treatment of chorea

After these explanations, it is not surprising that Núñez considered that the homeopathic medication *tarantula* has multiple powers and “numerous indications”, so many that “we do not have space to refer to particular groups of ailments or to species of some nosologic classification”. Thus the numerous, costly and exhaustive observations to establish the *pathogenesis* were reduced to a universal indication for the *tarantula* remedy, which was in itself toxic, but very effective when administered in a diluted and dynamized form.

That is why he recommended it: in “all convulsive forms where movement is continuous, and the periodicity of the sufferings indicate the need for tarantula, and fright, terror, fear of sudden death, vertigo and precordial anxiety, clearly characterize it”⁷⁵, a matter that is similar to one of the symptoms of tarantism⁷⁶. It was also most effective in the treatment of tertiary fevers, so he suggests tarantula as an alternative to cinchona⁷⁷; and for clorosis⁷⁸; etc.

Núñez draws the book to a close with some cases in which tarantula had had spectacular success when official medicine had failed. These are stories that are not very different from those we are accustomed to reading about the speedy, wonderful and safe effectiveness of music in the case of tarantism, although in this case the *tarantula* drug is used.

The year after the publication of the *pathogenesis*, the journal “El Criterio Médico” printed a case of chorea cured by *tarantula*⁷⁹. The article,

⁷³ Ivi, p. 189.

⁷⁴ J. Núñez, *Algunas reflexiones sobre terapéutica homeopática*, cit., p. 30.

⁷⁵ J. Núñez, *Estudio médico del veneno de la tarántula*, cit., p. 184.

⁷⁶ Ivi, p. 40.

⁷⁷ Ivi, p. 202.

⁷⁸ Ivi, p. 203.

⁷⁹ Paz Álvarez González, *Un caso de Corea curado por la Tarántula*, “El Criterio Médico”, VI, 1865, pp. 313-316.

apart from praising the qualities of the new medication, firmly stated that “we assure you that *tarantula* is the specific medication for chorea”. It produced a swift cure for an illness that is *rebellious* and even *incurable* by allopathic remedies⁸⁰.

This was a letter written to Dr Núñez by an allopathic physician on behalf of the father of a nine-year-old girl. “For twenty or thirty days she has been invaded by a rare illness of the nervous system, with the essential characteristic of disorderly and irresistible movements, due to violent contractions followed by alternating relaxation: a neurosis that is limited to her left hand and foot. This combination of paralysis and convulsions is the lesion of the organs of movement that characterize chorea or Saint Vitus’ Dance, and the nature and site of the lesion that produces it are unknown to allopathic medicine”⁸¹. The girl has previously been treated with certain foodstuffs and moderate exercise; she had also been dosed with anti-spasmodics and antihelminthics. But nothing worked.

Dr Núñez “sent her father four *papers* containing first and fourth *Tarantula* 200th, and second and third *Sac. lact. (saccharum lactis)*, to be given to the child in the order of their numbers, every five days, by dissolving the dose contained in two tablespoonfuls of water, which were to be taken an hour and a half before breakfast”. The result was so *satisfactory* that J. Núñez sent another two doses of *Tarantula* 200th which brought about a complete cure of the little patient⁸².

Conclusions

The study carried out shows that once again that academic medicine and alternative therapies must be studied in their mutual, dynamic relationships⁸³. In the 19th century, tarantism was well-known both among homeopaths and orthodox physicians.

In the *Medical study of the tarantula venom following the Hahnemann method* (1864) we have observed how the epistemological issues raised in a medical system refer to the intellectual sources it uses and the evidence it offers. Thus, the homeopathic perspective of tarantism accentuates the

⁸⁰ Ivi, p. 313.

⁸¹ Ivi, p. 314.

⁸² Ivi, p. 316.

⁸³ R. Jütte, M. Eklóf, M.C. Nelson, (eds.), *Historical Aspects of Unconventional Medicine*, cit., p. 4.

empirical character of the results described, and is based on the extemporal analysis of earlier medical writing. Núñez gave complete credibility to the clinical pattern caused by the tarantula bite, tarantism, and the use of music as treatment.

We have identified the historical and contemporary sources on which J. Núñez based his work. We must emphasise the influence of the work by F.X. Cid published in 1787 and of the articles by Dr Carlos Mestre y Marzal. Dr Núñez coincides with the foregoing literature on the central role played by G. Baglivi. Also very clear is Núñez' dependence on the *Étude sur le venin des Arachnides* written by Charles Ozanam (Paris, 1856).

One of the aspects we highlight is the up-dating of the naturalistic studies on the *Lycosa* species. Núñez wished to show that the Hispanic tarantula was different as he proposed to use its venom as a homeopathic drug, and the venom of serpents and other arachnids was already included in homeopathic pharmacopoeia.

The work commented was published by one of the most important representatives of Spanish homeopathy. And the vitalistic aspect of its author is the key to the interpretation of the work. For Núñez, awareness of the unity of man is possible due to the existence of the force, expressed as vital dynamism. "As the formation of all these elements was created due to the impulse and guidance of the vital force, it turns out that the organization is simply an expression of vital dynamism, proof of the life of nature, revealed in the organic process of the cosmos"⁸⁴. Illness, for Núñez, was an expression proper to the living being who participates in the intrinsic nature of life.

At the same time, on the theory of the action of music, Núñez maintained that it had a direct influence on organic structures such as the brain, as had been stated in the 18th century treatises; in his case this view was also based on his experience of the *pathogenesis*.

The longest section of Núñez' treatise is dedicated to experiments with tarantula venom. It is based on numerous observations carried out over 15 years by a Hispano-French team. Although we have pointed out the shortcomings in the publication of the results, the data they offer on the theory of tarantism and music therapy are sound. This is also true when *tarantula* is indicated as a specific treatment for chorea.

The theoretical development of tarantism and music therapy and the results of the *pathogenesis* of *tarantula* bear witness to the auto-exclusion

⁸⁴ J. Núñez, *Algunas reflexiones sobre patología*, cit.

of a homeopath of great prestige, with reference to scientific assumptions of medical science. In our case, the principles of causality or the praxis proposed by Núñez challenge the knowledge and experience of academic medicine.

But the fact is that the patients were cured by a homeopathic regime or by music therapy, while others, treated by traditional methods, were not. The critics pointed out that the homeopathic doses were, in practice, equal to the non-existence of the drug, and that the homeopathic *cures* were not due to the drugs given, but merely to the *curative power of nature*. However, this criticism was simultaneously an indictment of traditional medicine, as it used measures that harmed the patients instead of helping them. Homeopathy showed up a traditional medical practice, which had not yet developed a pharmacological system with a scientific basis.

This book is a milestone in the history of tarantism and music therapy with a new perspective which completes the lengthy story of this phenomenon up to the present.

