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The treatment of functional psychosis in Spain at the beginning of the XX century (1917-1931)

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This paper studies the introduction of the new physical therapies in the years prior to the Second Spanish Republic. It concludes that the physical treatments in force in the international literature were introduced early in Spain and were put into practice by the most important psychiatrists, although in few cases. Given the generalized criticism on the efficacy of psychiatry as a specialty, there was a general bias towards a positive evaluation of the efficacy of the physical therapies by the new generation of Spanish psychiatrists that did not occur in other countries of our setting. The psychiatrists who disagreed professionally with the above-psychiatrists opposed this tendency, there not being sufficient empirical support for the opinion of any group.

Keywords:
Treatment, psychiatry, XX century, Spain

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El tratamiento de las psicosis funcionales en España a principios del siglo XX (1917-1931)

El trabajo estudia la introducción de las nuevas terapias físicas en los años anteriores a la Segunda República Española. Concluye que los tratamientos físicos vigentes en la literatura internacional se introdujeron tempranamente en España y fueron puestos en práctica por parte de los psiquiatras más destacados, aunque en un escaso número de casos. Dada la crítica generalizada a la eficacia de la psiquiatría como especialidad, hubo un sesgo general a valorar positivamente la eficacia de estas terapias por parte de la nueva generación de psiquiatras españoles, que no se dio en otros países de nuestro entorno. Se opusieron a esta tendencia los psiquiatras que competían profesionalmente con aquellos, sin que la opinión de ningún grupo tuviese un apoyo empírico suficiente.

Palabras clave:
Tratamiento, psiquiatría, siglo XX, España.

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INTRODUCTION

Before the current pharmacological era, at the beginning of the first decades of the 20th century, different biological treatments were developed for insanity that provided important therapeutic hope at a time when, in general, it was considered that the traditional drugs had a function limited to patient restraint.[1]

Their initial success varied. Thus, while some were immediately criticized and scarcely spread, others had enormous success. We know that the use and spreading of treatments in psychiatry are not constant in all the countries and recently, some works have been published that compare the psychiatric "cultures" of different European countries.[2] This phenomenon has been verified since the beginning of psychopharmacology and still exists at present. In fact, in addition to the scientific achievements per se, professional, cultural and economical factors condition the success and failure with which a certain therapeutic approach is accepted.[3]

In this work, we study the introduction of modern pharmacological treatments into Spanish psychiatry in the 1920s and the psychiatric discussion generated regarding them. We have limited the work to the period ranging from the appearance of the first publications on this subject and the year 1931, a time when the Second Spanish Republic was founded and the group of renovator psychiatrists was consolidated in the School of Madrid.

THE SPANISH PSYCHIATRY OF THE FIRST TWO DECADES OF THE 20TH CENTURY

Spanish psychiatry at the beginning of this century suffered a deplorable situation, already carried over from the end of the previous century. Psychiatric care was both the responsibility of the state insane asylums, which had limited budgetary support and poor health care conditions, and of a parallel system of private asylums which, although they had

a better level of functioning than the state ones, could not compensate for the deficiencies of the public system.

The School of Madrid appeared in the second decade of the 20th century, headed by Rodríguez Lafora, one of the most emblematic figures of the history of Spanish psychiatry.[4] This new generation of psychiatrists initiated its steps by training in the field of neurology and traveling to foreign countries for their training. Their interest in importing new physical therapies for the treatment of insanity that began to be developed as well as their optimistic attitude and relationship with the capacity of curing of the new psychiatry was logical. With this, they aimed to reform the generalized pessimistic attitudes in the medical literature towards psychiatry, burdened by inoperative insane asylums and that maintained a predominantly custodial function.

At the beginning of the 1920s, the diagnoses of schizophrenia and early dementia were those used the most in Spain when classifying insanity.[5] Logically, the weight of the therapeutic measures that were going to be introduced into our country was oriented towards treatment of this disease and, to a lesser degree, to manic-depressive psychosis.

The tendency in the medical literature was to reject Kreapelin's concept of psychosis and to progressively accept that of Bleuler.[6] Among other reasons, the description and study of Bleuler of the mild pictures encouraged confidence in the cure and extended the treatment of psychoses to a wide group of patients who had a better response.[7] We should not forget that Bleuler's postulates began with the defense of a model of psychosis in which the substrate of the disease had an organic cause.[8] In fact, in Spain, independently of the interest for the new psychodynamic model, organicism was a basic postulate that maintained from the beginnings of the century that has been considered to be a consequence of the desire of psychiatry to professionally approach the rest of the medical specialties.[9] Logically, the physical therapies occupied a central role in the treatment of the psychoses.

Beginning in the second decade of the century, new psychiatric treatments were incorporated, and were introduced and discussed in the psychiatric literature. We are going to review the most significant ones:

PYROTHERAPY

Leukogenic reaction by nucleinates

Since the first decades of the century, the prestigious growth of immunology and the success of the infectious theory facilitated the appearance of that which Noll called immunological paradigm in psychiatry, according to which psychosis would be a consequence of an autotoxic reaction of the body.[10] This theoretical proposal justified the application of therapeutic methods aimed at detaining this supposed autoimmune reaction, which would later be proved erroneous.

In countries such as the United States, several authors used surgical methods, based on organ excision (appendix, teeth), that supposedly were responsible for the immune reaction. As significant examples, we have the experience of Henry Cotton in the Trenton Hospital for the Insane[11] or the experiences of Taylor Holmes in Chicago.[12] In Spain, these treatments were known, although they were criticized in the literature both because of their lack of proven efficacy and for the traumatic effects they could cause.[13-15]

Based on these theoretic assumptions, Rodríguez Lafora[16] introduced into Spain the use of leukogenic reaction in the treatment of schizophrenia by nucleinates. This treatment was initiated by Donath in 1913, in a communication that reported 53% remissions.[15] The method consisted in the administration of 5 cm^3 of a solution of sodium nucleinate at 5%, cacodilate at 3% and glucose serum at 10%.[17] The treatment was considered as a specific approach based on the knowledge of the true pathogency of schizophrenia, the autotoxic process defended by Kraepelin. For Rodríguez Lafora, this unveiled a new era in the therapy, in which the psychiatrist had specific means to treat mental disease as a consequence of the advance in the knowledge of the pathophysiology of the disease, compared to the old symptomatic approaches. Although he admitted that the psychogenic aspects modulated the morbid condition, the axis of the treatment was pharmacological intervention. This was an optimistic model, whose efficacy considered and rejected the possibility that they were not supposed cures but rather spontaneous remission, a question defended by other authors.[5] However, we have found that in such important private centers as that of the psychiatric hospital of Lafora, it was used as part of the action protocol in a generalized way for the psychotic patient.[18]

At the end of the decade of the 1920s, the method lost prestige in the literature, probably because of the appearance of new techniques of induction of leukogenic reactions, such as malaria therapy, fixation abscess and typhoid vaccine. Years later, Rodríguez Lafora[13] himself demonstrated more moderate enthusiasm for the technique, although he continued to recommend its use. Nouvillas[19] spoke about the results discussed and that, in spite of the appearance of new clinical trials, " we should not be surprised by propaganda of the commercial index." (p. 79)

Malaria therapy

Malaria therapy was introduced in the decade of 1910s by Wagner Von Jauregg and it is considered to be the first

effective treatment for one of the most severe and incapacitating diseases of its time, general progressive paresis (GPP).[20] Its use was not limited to this disease but it was also used for the rest of the functional psychoses, especially schizophrenia. In spite of its initial success, for which the author was worthy of the Nobel price, it progressively sank into oblivion and at the end of the 1930's, was extensively criticized. The method consisted in the injection of about 5 cm^3 of an attenuated suspension of intravenous or intramuscular plasmodium. The patient underwent 8 or 10 attacks of fever and than was treated with quinine or esanofele.[13]

In Spain, the discussion on the method in progressive general paresis (PGP) was introduced by Rodríguez Lafora[21] who considered it as a revolutionary method in the treatment of GPG. Its use in non-syphilic psychoses began in 1923 when Aguglia y D´Abundo treated a catatonic patient, achieving remission of the syndrome.[22] In 1925, Rodríguez Lafora[13] defended the method for the treatment of schizophrenia, whose efficacy was directly related with the leukogenic reaction produced in the patient. This made it effective against the causal factor of the disease, the autotoxic reaction having a sexual origin. However, they spoke about a very limited casuistics, of only 2 cases, which manifests that its use was very small in relationship to other forms of pyrotherapy. Vallejo Nágera[23] himself, a radical defender of the method of general paresis, commented his therapeutic experiences in the paludization of this schizophrenic patient, stating that the expectations for improvement were more limited in the case of this disease.

Fixation abscess

Another form of pyrotherapy used with some frequency was fixation abscess. The method consisted in injecting turpentine subcutaneously in the patient, in order to produce abscess and fever picture. This was maintained approximately 5 days and after an incision was made in the abscess, putting in a drainage and causing mild anti-sepsis.[24] Pascal and Davese, in 1926, were the first to use this in large series.[17] That same year, Villar and Germain,[18] members of the neurological outpatient clinic of Rodríguez Lafora, reported "surprising improvements" with this therapy. After 10 days of treatment "the fever completely changed the picture, a surprising improvement was established, the patient spoke and answered questions with complete normality" (p. 124). Mira y López[24] considered that this method was effective when the patient had certain clinical characteristics, these being for the author: in exogenous pictures, when agitation and confusion symptoms predominated and when the hallucinatory phenomena were intense. Even though he admitted his limited experience with the technique (19 cases), he did not hesitate to recommend it "at first, when there were hebephrenocatatonic patients, in amentia and in infectious and postinfection psychoses" (p. 518). On his part, Vallejo Nágera,[15] without mentioning casuistics, stated that he was satisfied with the method in the cases of agitated schizophrenia and that he had not found any benefit in hallucinatory schizophrenia pictures. Pérez López Villamil[25] stated that the method was the best pyretotherapy available since it provided a greater number of remissions. Furthermore, he considered that the pain produced by the technique was especially useful to control schizophrenic autism.

Typhoid vaccine

Rodríguez Lafora,[14] with his collaborator, Germain, introduced the use of the sensitized anti-typhoid vaccine as a fever inducing factor. He used 30 to 40 million bacteria in the sensitized vaccine, progressively increasing it up to 50 million. This was administered in a series of 10 injections separated by 10 days of rest. Although he spoke of erratic results and lack of experience, he resorted to the experience of Menninger, who developed the therapy in 1925 and presented it in a trial of 33 patients, for whom there were 64% remissions. Vallejo and Nouvillas[26] presented 6 clinical cases, in which there was 50% therapeutic success, with 33% total remission, although they did not indicate the follow-up time. That same year, Vallejo Nágera[27] spoke about the specificity of this method for catatonic and hallucinatory forms of schizophrenia and its lack of utility for the paranoid forms. Without mentioning the number of cases or the conditions under which this technique was tested, he provided efficacy values:" we obtained remissions and 32%, improvements and 16%, doubtful results in 12% and we failed in 40% of the schizophrenic patients," "it was sure that the timely selection of the indications elevates the percentage of successes of this modality of protein therapy" (p. 260).

Given the tendency to use eclectic models that integrate the organic and the psychological, in the same way as in the narcotherapy, some authors, as Germain,[28] also have proposed that fever intervals would produce psychic modifications in the subject, who will become calmer and easier to deal with, this facilitating the psychotherapeutic intervention. In the same way, Vallejo Nágera and Nouvillas[27] commented that by provoking fever, the patient's attention was distracted, this being "an appropriate time for this expert psychiatrist to work under better conditions on a psychism which would now be approachable with more fundamental and scientific psychotherapeutic methods" (p. 277).

Pérez López Villamil[26] in his casuistics of 43 cases of schizophrenic patients treated by pyretotherapy, fundamentally using the anti-typhus vaccine, only obtained 13.8% improvements. He mentioned the previous mention work of Vallejo Nágera, classifying the result as "surprising." He warned about the risk of confusing spontaneous remissions with cure and his suspicion that the initial improvement after the fever attack was not maintained afterwards.

Sulfosin

Sulfosin is a sterile sulphur in oil without albumins or pathogenic agents that was used as a pyretogene and was discussed in the literature at the end of the decade. It was introduced in 1929 by Schroder, in order to replace the previously, potentially more dangerous methods.[17] There were facilities, such as the insane asylum of Leganés, where it was tested intramuscularly in a small group of 6 patients with precocious dementia.[30] Pérez López Villamil[24] used it in some cases. The thermal increase commented on was safe and intense (reaching 41ºC), in general being well tolerated, with less weight loss than with the vaccine. Although the utility of the sedative effect and its action on negativism was admitted, no influence was observed on the schizophrenic affect.

KLÄSI METHOD

One of the first techniques to be introduced into our country was the Kläsi method,[31] published by this author in 1920 and introduced in our country in 1922.[32] This treatment was used in schizophrenic patients and in those diagnosed of manic-depressive psychosis who had an agitation picture with predominance of anxiety affect. It was based on producing a state of sedation in the patient, with which it was postulated that brain rest detained the vicious circle produced between psychic excitation and motor agitation. The method consisted in administering the patient a subcutaneous injections of 1 mg of scopolamine and 1 mg of morphine. Once sleep was initiated, 4 cm^3 of somnifen was administered, injecting one ampoule every 6-8 hours to maintain sleep for 8-10 days. The patient was awakened every 3 hours to eat and to void excrements, and to maintain therapeutic contact with him/her.[13] Rodríguez Lafora and Sacristán[33] were the most fervent defenders of the method until the end of the third decade, in spite of the strong criticisms coming from the international literature, especially due to the cardiotoxicity of somnifen, that produced elevated mortality.

Since this technique was initiated, more than as pyrotherapy it has been understood to be a mixed method between biological therapy and psychotherapy, because it meant that the treatment facilitated transference, and thus psychotherapeutic access to the patient. Rodríguez Lafora[34] defended that the method "modifies autism and negativism, making it possible to initiate psychoanalysis and psychotherapy of the patient" (p. 103). Although he used Bleuler's theoretical method to explain psychosis, he distanced himself from the pessimistic postulates of the author on the efficacy of the new methods and defended that the drug therapy not only modified the accessory symptoms but also the fundamental ones. For this author, however, the greatest utility of the method was its somatic effect: "we have the idea that the favorable action of these methods is somewhat purely biological" and organic, while psychotherapy only has a functional influence"" (p. 385-386). He minimized the possible harm to the patient and stressed its utility. Sacristán and González Pinto[35] applied the technique in two clinical cases of manic-depressive psychosis, which were followed-up for a period of 3 to 6 months. The authors concluded that there was a possible specificity of the therapy for this disease. Vallejo Nágera[15] stated he had not performed a total permanent narcosis, although he considered that the injections of somnifen combined with warm baths could be the specific treatment of acute episodes of schizophrenia.

The medical literature in Spain continued to defend the use of the method until entering into the decade of the 1930's. Valenciano,[17] in a review of the methods for the treatment of schizophrenia, commented this method, its limited utility for the acute episode and that the question on whether the cures were due to the effectivity of the therapy or to spontaneous remissions was not clear. Except in the German setting, the therapy entered into frank regression.[31]

CARROLL METHOD

This form of therapy was based on the experiences of Monakov, who found an alteration in the absorption and defensive capacity of the choroid plexus as a key functional lesion in schizophrenia. Carroll published a study with the method in 1923 and one year later, this method was introduced into by González Páez,[36] who published four clinical cases with their results. The method consisted in the extraction of 5 cm^3 of cerebrospinal fluid and its replacement with inactivated horse serum, producing aseptic meningitis which supposedly led to the recovery of the plexus function and to the patient's recovery. The experience of the author was that the clinical picture remained unmodified and that the supposed improvements mentioned by Carroll were only spontaneous remissions. Rodríguez Lafora[12] commented that in spite of the supposed effectiveness of the therapy presented by Carroll, he had not performed the method, and that Vallejo Nágera also had not done so.[15] However, the latter spoke about "stunning hopefulness" promised by the intravenous injections of hypertonic solutions (p. 260). This method, introduced by Mira and López[37] in a study of 8 schizophrenic patients, in which there was one cure and 4 improvements, was based on a detoxification and decompressive action of the cerebrospinal fluid. However, this experience was not replicated in other works.

THE SIDE EFFECTS OF THE THERAPIES

Although in other countries, there were strong criticisms about its potential dangerousness and inefficacy,[38] those who introduced it into Spain had a more favorable

view, although there were contradictions regarding how to consider the problem. Regarding the malaria therapy, in spite of the international debate on the individual harms and dangers for public health that the method could involve,[39] Germain[28] considered that the risk of transmission of the disease to other patients was null, as any alteration of the body systems. On the contrary, Rodríguez Lafora[14] recommended changing malaria pyretotherapy to typhoid vaccine, since "it has the serious disadvantage that it often causes a strong daily fever attack that many patients cannot resist without putting their lives in serious danger of heart exhaustion on the fourth or fifth day" (p.105). Vallejo Nágera,[15] although he defended that the use of the typhoid vaccine had fewer adverse effects, limited himself to considering that malaria therapy could activate latent tuberculosis.

Kläsi's narcosis was withdrawn early from many countries due to its serious side effects. In Spain, there were also criticisms regarding the dangerousness of the method. Villaverde and Larraz,[32] in accordance with their critical attitude towards the method, harshly attacked the therapy with somnifen due to its risks. They denounced the neurotoxic potential of the method and suggested returning to the use of traditional drugs in the restraint of the agitated patient, such as bromides, chloral and veronal, whose use was still extended in the clinical practice both in Spain and in most of the European countries.[40] Rodríguez Lafora[13] defended himself from the criticisms stating that although some cases of death had been published due to excesses in the dose or neglect in the observation, he had only found vomiting. On their part, after their experience with 2 cases of manic-depressive psychoses, Sacristán and Pinto[35] concluded that the method did not entail any danger for the patient.

RHETORICAL DISCUSSION ON THE EFFICACY OF THE THERAPIES

The professional arguments were often transferred to scientific discussion on the efficacy of the methods. The already-mentioned controversy between Villaverde y Larraz and Rodríguez Lafora makes sense from their professional rivalry, since both psychiatrists were competing for important posts, such as chief of the neuropsychiatry service of the Hospital Provincial of Madrid in 1932, which was finally obtained by Rodríguez Lafora.[4] The latter author, in face of the criticisms, resorted to more rhetorical than scientific postulates. He resorted to the need to take an energetic attitude towards the disease therapy versus the passiveness that had characterized the practice of the specialty in the country:[34] "should the future of the therapy of mental diseases be handled by doing nothing?" (p. 1062).

Vallejo Nágera, from his position of military psychiatrist in the Asylum of Cienpozuelos, was considered a defender of the reformist movement in psychiatry based on the trust in the efficacy of the available therapeutic resources and their intensive application. He openly criticized mental hospital treatment in Spain of the period and the attitude of the psychologists and psychiatrists, whom he accused of skepticism in the treatments. The therapeutic optimism of Vallejo made him affirm that "the moral and material collapse of the poor schizophrenic could be avoided if the disease was diagnosed early and the remedy administered in a timely way" (p. 475).[15]

One of the resources used by the author[23] was to recur to the rhetoric of referring to the therapeutic past of the nation and describing himself, with his collaborators, as heirs of this tradition: "the Iberic ingenuity often marked the scientific course followed by other populations, which being more practical and persistent, guided by our footsteps, knew how to take advantage of our discoveries and initiatives" (p.181). The other was to stress their role in the face of the generation of psychiatrists that preceded them, the so-called "School of Simarro," accusing it of therapeutic inactivity. All of this discourse served to support the promotion of the institution they managed, the Asylum of Cienpozuelos, that was thus placed among the elite of the Spanish psychiatric care: "it is unquestionable that the number of discharges is greater in our establishment" (p. 189). Martín Salazar,[41] a disciple of Vallejo, reported a health care inspection of the Asylum of Cienpozuelos and mentioned how Vallejo Nágera had converted it into a model mental hospital. In order to justify the quality of the center, he used the spectacular number of cures produced in general paralytics with the malaria therapy, with which the new scientific techniques and their capacity to cure were the essence of change of the institution.

Camino Galicia,[42] predecessor in the post of Director of Cienpozuelos, defended a different point of view on the treatment of psychosis. He maintained the incurability of schizophrenia and considered that the so-called remissions, so defended in the face of some treatments, were caused by the psychic and biological defenses of the body and by the spontaneous course of the disease. In clear reference to Vallejo, he considered the supposed advances in the physical treatment as a purely propagandistic attitude: "originating with it pryotechnics and false showiness successes, that led some psychiatrists, both national and foreign, to such excesses of exaggeration, as that of stating, for example, individual and social cures in demential paralytics, and up to granting malaria therapy the title of the real specific medication of paralytic dementia." (p. 677).

The difference in the point of view between the different authors in regards to therapeutic optimism or nihilism was sometimes dramatic, although ambivalences and contradictions could be found in even the most faithful defenders of the optimistic model as Vallejo Nágera himself. In one of his books,[43] he maintained a point of view on the treatment of schizophrenia

that did not greatly differ from the mistrust that we just saw in Camino Galicia. Although he began by rejecting the therapeutic nihilism of the writings of Kraepelin y Bleuler, he spoke of the treatments, more than as a means of proven efficacy, as a moral consolation to the hopeless. He even wrote on the subject that " I understood that however important the skepticism on the utility of a medication or therapeutic method, the physician should in no way instill this dejection to the family, nor deprive the patient of the right to undergo treatment, at least providing him/her with the consolation of not being abandoned to natural forces" (p. 89-90).

CONCLUSIONS

We have seen how the new physical therapies were received early and, in general, evaluated with a positive general bias, minimizing the importance of their side effects. However, the need to defend a modern psychiatry capable of giving satisfactory responses to the generalized criticism on their efficacy had great importance.

The defense of the new therapies was based on works with small casuistics and uncontrolled trials and short follow-ups that would make it possible for many authors to doubt if the supposed cures were not really cases of good prognoses or spontaneous remission, criticisms for which there were no clear responses. The extension of the concept of schizophrenia and its admission of the mildest clinical forms could influence in the positive evaluations. This bias was not constant in all the countries. In the United States, Grob[44] indicated that there was a pessimistic attitude towards the curability of psychoses in the 1920s. The psychiatrists accepted the limits of action of the specialty and preferred to develop a preventive role and the search for the causes of the mental disease based on laboratory studies. On its part, in the United Kingdom in the 1920s, in spite of the biologicism that characterized most of the psychiatric publications,[45] there was little confidence regarding the efficacy of the biological therapies and trust was basically placed on the therapeutic means and measures characteristics of social psychiatry.[46]

On the other hand, in empirical studies performed on clinical histories of the large mental hospital facilities of the era confirmed the lack of therapeutic conditions of the sites, extensively criticized in the medical press. In fact, the supposedly vanguard centers in regards to therapy show a relatively small number of physical interventions, which makes us think that the spectacular results mentioned in the bibliography were, to a large degree, rhetoric exaggerations.[47-49]

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