

Pediatric Gastroenterology in Latin America, a Personal Perspective

Carlos Castañeda Guillot^{1,2*}

¹*Emeritus Professor, Faculty of Medicine, Autonomous Regional University of Los Andes, Ecuador*

²*Consulting Professor, Senior Researcher, Calixto Garcia Medical Faculty, Medical University of Havana, Cuba*

***Corresponding Author:** Carlos Castañeda Guillot, Emeritus Professor, Faculty of Medicine, Autonomous Regional University of Los Andes, Ecuador.

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Abstract

Introduction: The PG emerged in Latin America as a specialty of pediatrics for the care of digestive diseases as an expression of the speciality's development in Europe and North America and other countries, as Japan and Australia more than 50 years ago. In the Latin American region, between 70s - 80s decade of the past century began due to the need to provide specialized medical care to children according to clinical advances and endoscopy for a precise diagnosis.

Objectives: Describe the history of pediatric gastroenterology's development in Latin America as pediatric speciality, the contribution and efforts to the development, Latin America society for PG, medical congress, publications and junior schools.

Results: The article describes the world context that promoted pediatric gastroenterology's. The speciality's development in Latin America and references was made for to specialized training initial stages, between 70s - 80s past century.

Discussion: Pediatric gastroenterologists are the physicians who specialize in the management of digestive system disorders and endoscopy in children from birth to the end of adolescents. This is a historical review obtained of international literature of the history of Pediatric Gastroenterology and document, unpublished since the emergence and development of the speciality in Latin America. The activities of Latin American Society for Pediatric Gastroenterology, Hepatology and Nutrition are described.

Conclusions: In the 70s decade of last century the PG emerged in the Latin America region. The establishment specialized services in pediatric hospitals in the countries of the region has provided quality for health care for digestive diseases of childhood. Pediatric gastroenterology's development and achievements in health care and research are validated and recognized as a medical practice

Keywords: *Pediatric Gastroenterology; History of Medicine; Service Network; Latin America; Children; Adolescents*

Introduction

Pediatric Gastroenterology (PG) has been recognized as a subspecialty of Pediatrics in the international field for more than 50 years. Its emergence is the result of the convergence of the development achieved by Pediatrics and Gastroenterology with its own identification [1]. It dates back to the decade of the 60s of the past 20th century in Europe and North America, also in the Pan Asian region, in Australia [2] and Japan [3]. In Europe, in different capitals, specialized units emerged, such as London, Paris, Berlin, Amsterdam, Bern, Rome, Tampere, among others [4]. In North America, the cities of Boston, New York and Los Angeles were created. first services and units for attention and research in PG [5].

The specialized medical care of the child began in Europe at the time of the Renaissance, with a scientific conception. In the nineteenth century, the first institutions in the service of medical attention to children were created and the first books on pediatrics began to be writ-

ten [6]. In this way, it emerges as a well-defined specialty. In this area appears the activity of the first contributions on the PG in Europe, where the prominent English physician Samuel Gee of the San Bartolomeo Hospital in London, is recognized as one of the precursors. His clinical descriptions are famous about the diarrheas of chronic evolution in childhood, especially in celiac disease and cystic fibrosis, published in 1888 [1].

PG is one of the most extensive pediatric subspecialties. It includes different areas and organs, such as the digestive tract, liver, gallbladder, pancreas and aspects related to nutrition. This discipline is interrelated with different specialties such as imaging, immunology, allergy, pathology and biochemistry, among others.

Infantile Hepatology was developed and consolidated as part of the GP, also from 1960, and it can be considered a subspecialty in pediatrics. The studies and contributions made by Daniel Alagille, in the Hospital de Bicetre, in Paris, France and Alex Mowat, in the King's College Hospital, in London, United Kingdom consolidated the specialty. Doctors from the Latin American region made study stays in both services. These professors participated in congresses of the specialty sponsored by LASPGHAN, Alagille attended the IX Congress held in Havana in 1989 and Alex Mowat the XI held in Montevideo, in 1994. The books published by both were decisive for the learning of liver diseases and the biliary tract in childhood and are classics of the medical-scientific literature in pediatrics. In the USA, the meritorious work developed by the hepatologist William Balistrieri (USA) is internationally recognized, for his contributions in many aspects in the study of the liver and the development of liver transplantation [7].

The classic books published by the initiators of the PG were a great contribution to medical-scientific training. The publications of the precursors of the specialty were decisive for its study. The book "Pediatric Clinical Gastroenterology" edited by Silvermann, Roy and Cozzeto in 1971 enshrined the development achieved in the field of the international pediatric community as a subspecialty, and also represented a work of great support to the activity of pediatricians and gastroenterologists who attended children [8]. After eminent pediatric gastroenterologists from different latitudes, they would write works that have been fundamental for the training of new specialists. In the Latin American region Fagundes-Neto, Wehba and Penna, of Brazil in 1983 published the first work dedicated to PG [9].

Journal of Pediatric Gastroenterology and Nutrition (JPGN), as an organ of NASPGHAN [10-12] and ESPGHAN [13], is a high-impact publication in the specialty and a valuable way to disseminate knowledge and advances. The Practical Guides agreed by the experts of these societies, disseminated in JPGN for information and updating, represent an advantageous updating and a guidance base for the care of children and adolescents, which are used by specialists in the region.

The aim of this article is to review the development of PG as a pediatric specialty, represented in the National Scientific Societies of the Latin American countries and which today form LASPGHAN, associated with the World Federation of Societies of Gastroenterology Hepatology and Pediatric Nutrition, is to aspire to expand the scientific relations with the different European centers highlighted in the formation and specialization of PG, especially for the benefit of the new generations of young Latin American physician dedicated to the medical care of children.

Results

Latin America is a region of the developing world, composed of populations of European, African and indigenous descendants of ancestral communities, with recognized economic and social imbalances (per capita income capacity and among social groups, access to basic services, in particular, education and health). These conditions have an impact on the living conditions of its inhabitants.

Challenges for the development of the PG

The GP in Latin America has faced multiple challenges for its development in different countries. It is essential to point out that acute diarrheal disease and its various causes, together with malnutrition, have been factors that have historically affected childhood morbidity and mortality in the region in previous decades. and because of the conditions of poverty in different population groups of our countries, it still lasts.

The attention of non-transmissible chronic digestive diseases, and others of infectious cause that affected different organs of the digestive system began to occupy an outstanding place for the health of children and adolescents and demanded the need for specialized care. It became necessary to expand the knowledge in little known or diagnosed diseases in pediatrics, the training for the application of the different types of digestive endoscopy for the diagnosis and treatment, the inclusion of new methods and indispensable techniques in pathologies of the digestive tract, as was the per-oral bowel biopsy and obtaining small biopsy samples from the different organs; special tests for the study of the liver and pancreas; the transplant of organs, in particular of the liver, were decisive factors. Disorders of child nutrition, due to malnutrition resulting from social limitations and still prevailing poverty and, on the other hand, overweight and obesity, as a health problem, which has increased in the region over the last 10 years, reflection of the new pandemic that affects all continents and the spread of new diseases were determining factors in the contribution of the emergence and development of the new subspecialty. The GP is facing new challenges today with the technological development of new equipment and techniques for the specific diagnosis of different diseases.

The creation of the first groups physicians specializing in the care of digestive diseases in childhood and the founding of centers categorized with specialized programs in industrialized countries, occurred from the 60s decade past century as a result of the need for specialists and the execution of research in gastroenterology, hepatology and pediatric nutrition, that were of great scientific importance for children's health in our countries. These events begin to develop between 10 to 20 years later, in the course 70s and 80s decade of the past century [15].

Latin American Society of Gastroenterology, Hepatology and Pediatric Nutrition (LASPGHAN)

The agreement of the physicians dedicated to the practice of the GP grouped and create scientific societies in North America [10-12], Europe [13,14] and the Pan-Asian region was an important leap of scientific importance for the health care of children and adolescents and served as a precedent for its development in the Latin American region.

In Sao Paolo, in 1975, LASPGHAN was founded, with the appointment of the Argentine doctor Horacio Toccalino (Hospital "A. Posadas", province of Greater Buenos Aires), as president, and the Brazilian doctor José Vicente Martins-Campos (Hospital Universitario Escuela Paulista, Sao Paolo), as general secretary. Initially its constitution was limited to recognized specialists from Argentina, Brazil and Uruguay, professors of the Faculties of Medicine of their respective countries, represented, among others, by Ricardo Licastro, Jorge Pedro Ortiz and José Luis Cervetto (Argentina), Ulisses Fagundes Neto, Aderbal Sabra, Dorina Barbieri, Yukar Ling Koda, Marion Lima, Jamal Wehba, Francisco José Penna; (Brazil) and Rodolfo Maggi (Uruguay), among others, which would initiate the celebration of medical-scientific meetings sponsored by the newly founded Society in the cities of Buenos Aires, Sao Paulo and Montevideo. In later years, colleagues from Bolivia and Venezuela would join the Society. Currently, it brings together all the doctors dedicated to the specialty in Latin America [15].

The objectives for the foundation of LASPGHAN were: 1) to bring together specialists from the different countries of the region, 2) to promote studies and work in the new pediatric specialty and 3) training in new techniques for diagnosis in children [15].

LASPGHAN has played an important role in the agglutination of pediatric gastroenterologists, and the subsequent incorporation of Iberian specialists was a significant benefit, which are members of ESPGHAN as well, with the result of an important advance for the subspecialty. From the foundation, scientific events would begin to be carried out with an interval of two years, until the present

Training of specialists

The need for attention in complex conditions of the digestive system, the development of experience in specialized medical care and the vocation of pediatricians and some gastroenterologists, were the basis for the formation of PG as a specialty in the region.

The projects for the training of specialists and the writing of the syllabi of the academic programs, allowed to obtain the validation by the universities of the GP, with the recognition of the centers created in medical institutions of high scientific level for the clinical and endoscopic training. Since that time, the GP was validated in many Latin American countries as a specialty of pediatrics or subspecialty [16,17].

Thus, centers for training and refresher courses, such as Argentina, Brazil, Uruguay, Mexico, Venezuela and Cuba [18,19] gradually emerged in the region, among other countries [20], to which new generations of doctors would go. The specialization and training with academic programs was achieved progressively in the countries where the teaching conditions existed, in others or outside the region.

In the referred decade of the 70s and 80s of the past century young Latin American doctors from different countries, were welcomed in centers in Europe, the United Kingdom, France and Spain and North America (USA and Canada) to conduct training and overcoming stays with the aim of acquiring the most recent knowledge of the time in Gastroenterology, Hepatology and Pediatric Nutrition and the skills for digestive endoscopy techniques. Others had already reached the specialization in Pediatrics or Gastroenterology in their countries of origin and attended courses of improvement. These professionals encouraged the development of the specialty upon their return in their countries, they were pioneers in the specialty. Today they are outstanding leaders in PG.

Congresses of LASPGHAN

The founding doctors of LASPGHAN started holding meetings in 1975 in Brazil, which later became congresses due to the massive attendance. These events sponsored by LASPGHAN have been of great importance for pediatrics, representing a leap in scientific activity. The first congresses were held in Sao Paulo, Buenos Aires, Montevideo, Rio de Janeiro, Belo Horizontes between 1975 and 1987. The option of holding the IX Meeting/Congress in Havana in 1989 opened the possibility of extending the Society to others countries of the region, by incorporating members from Mexico, a country with an outstanding development in the specialty; Colombia, Central America and the Caribbean, because until now the congresses had only been held in countries of the so-called Southern Cone and Brazil. Subsequently, they have continued celebrating every two years in the countries of the region and in Madrid (Spain) in 2003 and Porto (Portugal) in 2017. The next one is scheduled for next November 2019, in Cancun, Mexico [15].

In 1991, at the congress held in Montevideo, it was agreed to assure the participation of prominent Iberian colleagues, especially Spaniards, to name successive congresses, such as Latin American and Ibero-American events, to recognize the support of gastroenterologists from both European countries.

The congresses sponsored by LASPGHAN have continued to be held every two years in different capitals and cities of the continent: Caracas, Sao Paulo, Puebla (Mexico), Cordoba (Argentina), Madrid, Cartagena (Colombia), Puerto Varas (Chile), Punta Cana (Dominican Republic), Natal (Brazil) and Lima. A total of 21 Latin American and 11 Ibero-American congresses have been highlighted [15].

In all of these congresses, prominent international personalities from the field have participated, coming from North America and Europe, who transmit their own experiences and results of the novel studies and investigations of the moment, achieving an update of the most relevant scientific events. This contribution represents an important contribution for the PG in the region.

In the World Congresses the presence of the members of LASPGHAN has been considerable. In 2008, the headquarters of the Third World Congress corresponded to the Latin American region, was held in Foss de Iguazú, Brazil, organized by LASPGHAN [21].

Publications of books by authors of the region

The publication of numerous works of PG has been a great impetus for the specialty and expression of maturity reached. Pediatric gastroenterologists from Brazil, Argentina, Uruguay, Mexico, Colombia, Cuba and Venezuela, among others, have published books and atlases of digestive endoscopy, written by a group of unique authors or authors, with communications of the experiences of the specialists of the region.

Journal of PG for the region

Nowadays, LASPGHAN does not have a specialized journal in PG as a scientific organ of the society for the benefit of the medical community of the Latin American region in Spanish language. In the beginning, in the 70s of the 20th century, it was represented by the Brazilian journal "*Arquivos de Gastroenterología*", and currently it is the Argentine journal "*Acta de Gastroenterología Latinoamericana*", but both

are journals on the general subject of the specialty of gastroenterology. These journals also admit publications of pediatric gastroenterology of the authors of the region. Sometimes experts from the region have published their studies and experiences in JPGN, the organ of the North American Society (NASPGHAN) and the European Society (ESPGHAN), but this is not usual. However, articles and experiences of medical specialists are published in different pediatric journals from different countries of the continent and the world.

In Colombia, for more than 15 years, the only journal of pediatric gastroenterology in the region has been published, sponsored by the Universidad del Valle, in the city of Cali, directed by a prominent Colombian gastroenterologist, which has meant an important opportunity for Publications of specialty topics for doctors in the region.

Working groups for the World Congresses

The guidelines are documents of practical value for medical assistance agreed upon by NASPGHAN and ESPGHAN committee initiatives. Following these criteria in the World Congresses sponsored by the World Federation of Societies of Gastroenterology, Hepatology and Pediatric Nutrition, the Working Group is held for new agreements [22-25]. The participation of distinguished members of LASPGHAN in these Working Group together with their colleagues from the other international societies has been useful, which occurs since the first world event held in Boston in 2000. It should be highlighted the awarding of awards and recognitions to members of society in the world and regional events for their research, despite limitations for their practice and development of the specialty in different countries.

Junior School

In recent years LASPGHAN organized the Junior School in PG for the younger generations of physicians, similar to those organized by NASPGHAN and ESPGHAN [26].

In 2014, by decision of past presidents and the acting president and with the support of the pharmaceutical industry, the First Junior School, held in the Riviera Maya (Mexico), was coordinated, with the participation of 40 pediatric gastroenterologists from the region, for three days, with topics of gastroenterology and pediatric hepatology. The teachers were members of LASPGHAN, NASPGHAN and ESPGHAN.

These meetings have been continued successfully every two years, the Second Junior School by the doctors dedicated to the specialty was in 2016 in Santiago de Chile and the Third Junior School in Puebla (Mexico), in 2018. The last one presented the novelty of the attendance of young doctors from Spain and Portugal. The three schools had the participation of the presidents of the Latin American, North American and European specialty societies

Conclusions

In the 70s decade of last century the PG emerged in the Latin America region. The establishment specialized services in pediatric hospitals in the countries of region has provided quality for health care for digestive diseases of childhood. Pediatric gastroenterology's development and achievements in health care and research are validate and recognized as a medical practice specialty.

Final Considerations

Today, in the New Millennium, after almost 50 years of its emergence, Pediatric Gastroenterology as a medical subspecialty has been consolidated in the Latin American region, together with Hepatology and Pediatric Nutrition as members of it, with results of great importance for benefit of children's health. The GP is a specialty validated in most countries with academic programs in its three branches, which includes digestive endoscopy. The creation and activities promoted by LASPGHAN in different directions have been vital for the health of the digestive system in Latin American children and adolescents.

Conflict of Interest

The author declares no conflict of interest.

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