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Joint International SILACO, SICCMII, ISASS Symposium as a Model for a Collaborative Framework to Create Literature on Advances in Spine Surgery, Patient Care, and Policy

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ABSTRACT

International collaborations can be the key to overcoming innovation implementation hurdles. The authors report on a joint symposium between the International Society For The Advancement of Spine Surgery (ISASS) and La Sociedad Iberolatinoamerica de Columna (SILACO), and La Sociedad Interamericana de Cirurgia de columna de Mínima invasión (SICCMII) aimed at improving joint surgeon education programs. The symposium highlighted that patient-related spine care issues are similar across geographical, cultural, and language barriers. The sustainability of such programs depends on funding and mutually respectful relationships orchestrated by multi-lingual leaders who will bridge gaps created by geographical, cultural, and language barriers to effectively develop clinical research content focused on advancing surgeon education and improving patient outcomes across the Americas.

Editorial

Keywords: collaboration, spine surgery, education

INTRODUCTION

International collaborations can be the key to overcoming innovation and implementation hurdles frequently encountered when delivering high-end, modern comprehensive spine care. The International Society for the Advancement of Spine Surgery (ISASS) strives to bring together surgeons worldwide to work on globally relevant clinical topics that affect patients with spine pain by offering innovation in combination with high-grade clinical evidence with a foundation in well-executed basic research and clinical study. With the bimonthly circulation of *The International Journal of Spine Surgery (IJSS)*, the Society can solidify its international outreach by publishing high-quality articles that recognize and validate the submitted authors' work by withstanding the scrutiny of a rigorous peer-review process. Under new leadership by

Dr Charles Branch, who previously served as the Editor-in-Chief for the North American Spine Society's *Spine Journal*, a unique team of editors with renewed interest in international collaboration has been appointed. This team of well-published deputy editors, Drs Jim Harrop, Sheeraz Qureshi, and Albert Telfeian, and associate editors, Drs Kai-Uwe Lewandrowski, Morgan Lorio, and Choon-Keun "Alex" Park, has leveraged their influence and leadership position with European, Asian, and Latin-American spine societies to help *IJSS* transform into a leading international publication catering exclusively to spine surgeons.

In the first of a series of ISASS-endorsed joint ventures, a symposium held with La Sociedad Iberolatinoamerica de Columna (SILACO) and La Sociedad Interamericana de Cirurgia de columna de Mínima invasión (SICCMII). In this editorial, we illustrate how such collaborative efforts can orchestrate high-quality research to a mutual

benefit, with improved patient care being of primary importance.

PARTNERS WITH A COMMON GOAL

ISASS’s relationship with SILACO and SICCMII was recently re-energized due to a joint symposium during the International Course in Advances in Spine Surgery held between 19 and 21 May 2022, in Quito, Ecuador. These organizations pursue a common goal with ISASS: Surgeon education on all aspects of spine surgery, ranging from basic and clinical science of motion preservation and stabilization; innovative technologies, such as robotics, artificial intelligence, biologics, and endoscopy; to other fundamental topics on deformity correction, motion preservation, and minimally invasive surgery (MIS) procedures to restore the function of the spine. ISASS shares its dedication to advancing significant evolutionary steps in spine surgery with SILACO and SICCMII. These 2 organizations have a combined membership of over 2000 spine surgeons throughout Latin America and Spain, with Mexico and Brazil providing the largest contingents. This joint symposium highlighted that patient-related spine care issues are similar across geographical, cultural, and language barriers. Those clinical and technology standards are on par with North America, Asia, and Europe.

SYMPOSIUM: CURRENT HOT TOPICS AND CLINICAL FOCUS

Dr Jaime Moyano, President of SILACO, served as chair of the May 2022 International Course on Advances in Spine. Attendees, presenting authors, and faculty hailed from Argentina, Bolivia, Brazil, Colombia, Guatemala, Mexico, Paraguay, Peru, Portugal, the Dominican Republic, Uruguay, Venezuela, and the United States. These countries’ respective orthopedic and neurosurgical societies were represented by their presidents to come together on the following hot top issues. Controversies in the modern and comprehensive management of painful lumbar and cervical degenerative spine disease were presented, followed by presentations related to trauma, deformity, infection, and tumor of the thoracolumbar spine (Table). Heated debates on the utility and clinical benefit of MIS vs endoscopic spine surgery broke out under the moderation of Dr Jorge Felipe Ramirez, past president of SILACO, President of the Colombian Orthopaedic Society, and Director of the most important center for surgeon training in Latin America (El Centro Latinoamericano de Educacion de Cirurgia Minimamente Invasiva in Bogota, Colombia). A well-known innovator and key opinion leader in Iberian and Latin-American spine literature, Dr

Table. Topics presented at the advanced La Sociedad Ibero-latinoamericana de Columna course on 19 to 23 May 2022 and the number of presentations.

| Topic | Number of Presentations |
|--|-------------------------|
| Lumbar disc herniation | 7 |
| Discogenic low back pain | 6 |
| Lumbar facet syndrome | 7 |
| Cervical myelopathy | 7 |
| Lumbar interbody fusion for degenerative pathology | 7 |
| New technologies | 7 |
| Deformity surgery | 7 |
| Sagittal balance | 6 |
| Cervical stenosis: surgical management | 7 |
| Spinal endoscopy (ISASS, SICCMII, LESS) | 7 |
| Pediatric deformity | 7 |
| Lumbar spondylolisthesis | 6 |
| Intradural tumors (FLANC) | 6 |
| Adult scoliosis surgery | 7 |
| Complications of lumbar degenerative surgery | 6 |
| Clinical case discussions | 36 |

Abbreviations: FLANC, Federacion Latinoamericana de Sociedades de Neurocirugia; ISASS, International Society for the Advancement of Spine Surgery; LESS, Latinoamerican Endoscopic Spine Surgeons; SICCMII, La Sociedad Interamericana de Cirurgia de columna de Minima invasion.

Ramirez argued vehemently against the reinstatement of well-known but outdated policy goals sidelining MIS and endoscopic spinal surgery¹⁻⁵ by questioning the validity of the available clinical evidence. The ISASS contingent argued for a long-term value-based analysis by presenting published 5- to 10-year follow-up data with lower reoperation rates than traditional open laminectomy and fusion surgery.^{6,7} Meta-analysis data are collating produced well over 20,000 data samples from 89 clinical studies in some cases. A standardized effect size analysis was presented to demonstrate significant treatment benefit overlap early after lumbar spine surgery.⁸

This discussion on disease progression carried over into the controversies of long-segment fusion for spinal deformity and trauma, with the management of adjacent segment disease, proximal junctional kyphosis, and early vs delayed surgical care management of spine fractures at the top of the list. Surgical management of cervical and thoracic spinal cord compression was eloquently discussed in the context of clinical disability, risks, and benefits of conservative vs surgical care. Dr Cristiano Menezes, President of the Brazilian Spine Society, presented state-of-the-art surgical techniques.⁹ Navigation and augmented reality applications for the placement of pedicle screws had several presentations throughout the general sessions but no special sessions. In contrast, biologics and artificial intelligence had 1 presentation each, and robotics had none.

Hands-on training courses were exclusively dedicated to spinal endoscopy, with many first time attendees familiarizing themselves with this technology. Dr Nicholas Prada from Bucaramanga, Colombia, took the



Figure 1. Top panel: Plenary session. Middle panel: Luis Duchén (Bolivian Spine Society), Kai-Uwe Lewandrowski (presenting the International Society for the Advancement of Spine Surgery contingent, President-elect of La Sociedad Interamericana de Cirugía de Columna de Mínima Invasión [SICCMII]), Jorge Felipe Ramírez Leon (Past President La Sociedad Iberoamericana de Columna [SILACO] and President-elect of Colombian Orthopaedic Society), and Jaime Moyano (President of SILACO). Bottom panel: Jose Rugeles (Bogota, Colombia), Paulo Pereira (Porto, Portugal), Dr. Armando Pineda (Venezuela), Jorge Ramirez (Bogota, Colombia), Cristiano Mendez (Sociedade Brasileira de Columna), Jaime Moyano (SILACO), Jose Antonio Sanchez Soriano (FLANC), Dr. Juan Manuel Velasco (Uruguay), Hani Mhadli (SILACO), and Dr. Carlos Bueno (Perú).

lead by demonstrating the latest endoscopic techniques. The Latinoamerican Endoscopic Spine Surgeons (LESS) group organized the joint SILACO, SICCMII, and ISASS session, whose members are internationally recognized key opinion leaders, including Drs Jorge Felipe Ramirez Leon, Jose Rugeles, Nicholas Prada, Carolina Ramirez, and Kai-Uwe Lewandrowski, who represented the ISASS contingent during this session (Figure 1). Topics ranged from basic to advanced techniques of endoscopic spinal decompression, patient selection criteria based on validated pain generators rather than image-based medical necessity criteria for surgery, to staged management concepts and early intervention. The debate ended with the consensus that more translational and collaborative research are needed to provide more education and proper hands-on training, with mentor and proctorship programs being recognized as the most efficient method to master the learning curve of spinal endoscopy.¹⁰

RECOGNITION AWARDS

In advancing innovation in spine surgery, recognition and awards go a long way to enhance the visibility of key players. Drs Jorge Ramirez, Eugenio Galilea, Michael Dittmar, and Javier Matta were presented with scientific merit medal (Medalla al mérito científico). The diploma

of honorary associate member (Diploma de Socio Honorario) was awarded to Dr José Antonio Soriano and the Diploma en grado de Caballero to Dr Hani Mhadli. These individuals were recognized for their exceptional contributions to advanced surgical spine care and tireless efforts in training the next generation of spine surgeons in Latin America and the Iberian territories (Figure 2). Their fellowship programs are well known throughout the Spanish-speaking world and are recognized as centers of excellence. For example, El Centro Latinoamericano de Educacion de Cirugía Minimamente Invasiva, which was initially founded by Dr Ramirez in 1990, is a 10,000-square-foot training facility with several training laboratories, each with 4 to 6 stations with state-of-the-art endoscopic and arthroscopic equipment available to be used during graduate and postgraduate training programs in orthopedic joint and spine surgery, neurosurgery, and interventional pain management.

LATIN-AMERICAN COLLABORATION AND IMPACT FACTOR

A primary goal of ISASS is to promote the ethical exchange of knowledge, research, and education, to restore function and relieve pain in degenerative



Figure 2. La Sociedad Ibero-latinoamericana de Columna (SILACO) distinguished clinician research award ceremony (a). The award was given to Professors Jorge Felipe Ramirez Leon (Past President of SILACO and President-elect of Colombian Orthopaedic Society; shown with his daughter Carolina in panel (b)), Michael Dittmar, and Hani Mhadli. The general sessions occurred at the Swiss Hotel in Quito, Ecuador (c). The SILACO board group photo is shown in panel (d).

conditions of spinal joints, especially the intervertebral disc. Of the 840 *IJSS* articles in PubMed (date of last search 04 June 2022), some 45 reports were from Latin America¹¹⁻¹⁴ and another 25 from Spain.¹⁵⁻¹⁷ In other words, 8.3% of *IJSS* publicly discoverable articles have been published by teams of Hispanic authors. This relatively low percentage is likely primarily a representation of the language barrier. These authors must overcome this when attempting to publish in a journal whose official language is English. A systematic review evaluated the scientific production of the Mexican Association of Spine Surgeons (Asociación Mexicana de Cirujanos de Columna) from its inception in 1998 to 2018 and found 441 articles, 320 of which were published in indexed journals.¹⁸ The most frequent evidence level was III (211 articles, 48%), and the highest was I (12 articles, 3%). The primary study objective was clinical research, with 308 pieces (70%), and the main study focus was trauma, with 103 articles (23%). An average impact factor of 0.16 and 0.92 was obtained for publications in Spanish and English, respectively. *IJSS* strives to bring an impact factor to attract more submissions to help it pursue its goal. For this reason, the *IJSS* Editorial Board is excited about the newly regained momentum with Latin-American spine societies. The recent joint symposium organized by its

associate editors—Drs Morgan Lorio, Alex Kim, and Kai-Uwe Lewandrowski—has undoubtedly increased its visibility, which we hope will soon translate into joint projects. These 3 individuals will continue their ambassadorial role in international outreach in the spirit of reciprocity as the key to success.

THE FUTURE

With the continued commitment and dedication of many of the leaders mentioned above, the establishment of joint programs has great potential. Funding by the involved stakeholders and supporters is necessary to establish and sustain these programs. Sustainability will also depend on mutually respectful relationships with multilingual leaders who will bridge gaps created by geographical, cultural, and language barriers. The goal will be to develop clinical research focused on advancing surgeon education and improving patient outcomes across the Americas.

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