Miller School Neurosurgeons Present Treatments, Research Findings at 2023 Spine Summit

Surgeon scientists with the University of Miami Miller School of Medicine showcased leading-edge procedures, therapies and research at Spine Summit 2023, held March 16-19 at the Fontainebleau Miami Beach. Organized by the American Association of Neurological Surgeons (AANS) and Congress of Neurological Surgeons (CNS) Section on Disorders of the Spine and Peripheral Nerves, the Spinal Summit is the nation’s largest annual conference for these spinal specialists.

Dr. Allan Levi presented “Erb's Palsy: Injury Management in the Athlete” at the Spine Summit.

“Our faculty, fellows and residents presented their contributions to the field, demonstrating the Miller School’s longstanding strengths in spinal surgery,” said Allan D. Levi, M.D., Ph.D., professor and chairman of neurosurgery, the Robert M. Buck Distinguished Chair in Neurological Surgery and chief of neurosurgery at Jackson Memorial Hospital. In the scientific session on peripheral nerve perplexities, Dr. Levi presented “Erb's Palsy: Injury Management in the Athlete.”

“My talk focused on players who get this transient paralysis and numbness in the arm when injured in contact sports,” Dr. Levi said. “It covered the prognosis and management of this
condition, including surgery when needed.”

About 1,400 neurological surgeons attended the Spine Summit. Miller School neurosurgery faculty, fellows and residents presented more than 20 abstracts, and the Department of Neurological Surgery hosted a well-attended alumni reception.

**Advances in Spinal Surgery**

“We have the largest neurosurgical spine fellowship program in the country,” said Michael Y. Wang, M.D., professor of neurological surgery and rehabilitation medicine, director of the Miller School’s Spine Fellowship Program and chief of neurosurgery at University of Miami Hospital. “All eight of our fellows gave presentations, as well as many of our 21 residents,” said Dr. Wang, who was 2019 president of the AANS/CNS section.

In his talk, Dr. Wang highlighted the Miller School’s deep experience in doing “awake” spinal surgery with sedation, rather than anesthetic injections.

Dr. Michael Wang presented “Endoscopic Awake TLIF: Is This Just Me or Is It Ever Going to Catch On?”

“We are leaders in this ultra-minimally invasive strategy for transforaminal lumbar interbody fusion (TILF), which involves accessing the lower spine from the front,” said Dr. Wang, whose talk was titled “Endoscopic Awake TLIF: Is This Just Me or Is It Ever Going to Catch On?”

Dr. Wang said that the patient benefits of using sedation
include faster recovery and fewer potential side effects. “Neurological surgeons come from around the world to learn from our team, which includes anesthesiologists who work side by side with us in these procedures,” he said.

Stephen Shelby Burks, M.D., assistant professor of neurological surgery, who is studying how to enhance the repair of peripheral nerves damaged in accidents, gave the third faculty presentation on “The Influence of Schwann Cells and Exosomes on Functional Recovery After Repair of Long-Segmental Peripheral Nerve Defect in the Rat.” Dr. Burks said the Miller School has an ongoing clinical trial using the patient’s own Schwann cells.

“This can be very effective, but requires surgery to harvest the cells and significant time to culture their growth,” he said. “In this laboratory study, we used exosomes, which are derived from cells and don’t generate an immune response. At this point, it appears that exosomes are beneficial. Over the next several months we will determine how well they enhance nerve recovery.”

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