

#### **Annual Forum '20**

# ON DEMAND SESSION 3: CERVICAL, COMPLICATIONS, TRAUMA & TUMOR ABSTRACTS

Paper 38: The Psychological Burden of Disease Among Patients Undergoing Cervical Spine Surgery: Are We Underestimating our Patients' Inherent Disability?

Peter Passias, MD, Sara Naessig, BS, Waleed Ahmad, MS, Katherine Pierce, BS, Oscar Krol, BA, Lara Passfall, BS, Nicholas Kummer, BS, Brooke O'Connell, MS, Constance Maglaras, PhD NYU Langone Hosp., New York, NY.

#### Paper 39: Quantifying the Interplay Between Translations of the Intervertebral Discs and Facet Joints in The Cervical Spine: An *In Vivo* Biomechanical Analysis

Haiming Wang<sup>1</sup>, Chaochao Zhou, PhD<sup>1</sup>, Yan Yu<sup>2</sup>, Cong Wang<sup>3</sup>, Tsung-Yuan Tsai<sup>3</sup>, Chaofan Han<sup>1</sup>, Guoan Li<sup>1</sup>, **Thomas Cha**<sup>4</sup>

<sup>1</sup>Newton-Wellesley Hosp., Newton, MA, <sup>2</sup>Tongji Hosp., Shanghai, China, <sup>3</sup>Shanghai Jiao Tong Univ., Shanghai, China, <sup>4</sup>Massachusetts Gen. Hosp., Boston, MA.

### Paper 40: Multimodal Analgesic Management for Cervical Spine Surgery in the Ambulatory Setting: Clinical Case Series and Review of the Literature

Conor Lynch, MS, Elliot Cha, MS, James Parrish, MPH, Nathaniel Jenkins, MS, Michael Nolte, MD, Caroline Jadczak, BS, Shruthi Mohan, Cara Geoghegan, BS, Jeffrey Podnar, MD, Asokumar Buvanendran, MD, Kern Singh, MD Rush Univ. Med. Ctr., Chicago, IL.

#### Paper 41: The Human Cervical Spine Is Loaded Twice as Frequently as the Hip and Knee During Walking: An *In Vivo* Biomechanical Analysis

Chaochao Zhou, PhD¹, Guoan Li¹, Cong Wang², Haiming Wang¹, Yan Yu³, Tsung-Yuan Tsai², Thomas Cha⁴

<sup>1</sup>Newton-Wellesley Hosp., Newton, MA, <sup>2</sup>Shanghai Jiao Tong Univ., Shanghai, China, <sup>3</sup>Tongji Hosp., Shanghai, China, <sup>4</sup>Massachusetts Gen. Hosp., Boston, MA.

#### Paper 42: *In Vivo* Cervical Segment Kinematics in Dynamic Axial Twisting of the Head and Neck with a Focus on the Upper Cervical Spine

Runsheng Guo<sup>1</sup>, Chaochao Zhou, PhD<sup>1</sup>, Cong Wang<sup>2</sup>, Tsung-Yuan Tsai<sup>2</sup>, Yan Yu<sup>3</sup>, Wei Wang<sup>1</sup>, Guoan Li<sup>1</sup>, **Thomas Cha**<sup>4</sup>

<sup>1</sup>Newton-Wellesley Hosp., Newton, MA, <sup>2</sup>Shanghai Jiao Tong Univ., Shanghai, China, <sup>3</sup>Tongji Hosp., Shanghai, China, <sup>4</sup>Massachusetts Gen. Hosp., Boston, MA.

#### Paper 43: The Deleterious Effects of Frailty on Perioperative Outcomes in Spine Surgery Are Mitigated by Minimally Invasive Techniques

Peter Passias, MD¹, Sara Naessig, BS¹, Bhaveen Kapadia, MD², Waleed Ahmad, MS¹, Katherine Pierce, BS¹, Lara Passfall, BS¹, Oscar Krol, BA¹, Nicholas Kummer, BS¹, Carolyn Stickley, BS¹, Jack Zhong, BA¹, Eaman Balouch, MD, PhD¹, Nicholas O'Malley, MS¹, Aaron Buckland, FRACS¹, Steven Hale, MD¹, Claire White-Dzuro, BA¹, Bassel Diebo, MD³, Shaleen Vira, MD⁴, Brooke O'Connell, MS¹, Constance Maglaras, PhD¹, Themistocles Protopsaltis, MD¹, Michael Gerling, MD¹

<sup>1</sup>NYU Langone Hosp., New York, NY, <sup>2</sup>SUNY Downstate, Brooklyn, NY, <sup>3</sup>SUNY Downstate Med. Sch., Brooklyn, NY, <sup>4</sup>UT Southwestern, Dallas, TX.

#### Paper 44: Treatment of Pressure Injury with a Novel Negative Pressure Device in People with Spinal Cord Injury

Rajeshwar Srivastava, MS (Orthopaedic Surgery), Mukesh Dwivedi, PhD, Amit Bhagat, PhD Scholar, Saloni Raj, MBBS King George's Med. Univ., Lucknow, India.

#### Paper 45: Infection Rate in 212 Consecutive Patients Treated by Minimally Invasive Lumbar Tubular Decompression

**Nicolas Coombes, MD**, Norberto Fernandez, MD, Eduardo Galaretto Galaretto, MD, Cristian Fuster, MD

Axial Med. Group, Buenos Aires, Argentina.

#### Paper 46: Comparison of Outcomes in Percutaneous Fixation of Traumatic Fractures Between Ankylosing Spondylosis and Diffuse Idiopathic Skeletal Hyperostosis

Scott McCarty, MD, **Jacob Bruckner**, **MD**, Jael Camacho, MD, Daniel Cavanaugh, MD, Eugene Koh, MD, PhD, Daniel Gelb, MD, Steven Ludwig, MD Univ. of Maryland, Baltimore, MD.

#### Paper 47: Role of Metabolites in Bio-fluids as a Prognostic Indicator of Neurological Recovery in Acute Spinal Cord Injury (ASCI)

Rajeshwar Srivastava, MS<sup>1</sup>, Alka Singh, PhD<sup>1</sup>, Raja Roy, PhD<sup>2</sup>, Saloni Raj, MBBS<sup>1</sup> <sup>1</sup>King George's Med. Univ., Lucknow, India, <sup>2</sup>Ctr. of Bio-Med. Res. (CBMR), Lucknow, India.

### Paper 48: Percutaneous Transpedicular Kyphoplasty with PPMA for Treatment of Vertebral Body Compression Fractures: Clinical and Radiological Results on 600 Cases

Gabriele Carrabs, MD, Giovanni Sessa, MD, Giovanni Oliva, MD, Angelo Storti, MD AOSG Moscati - Avellino, Avellino, Italy.

#### Paper 49: Radiological Evaluation of Lumbar and Thoracic Spine Injuries in Young Male Patients Due to Road Traffic Accidents

**Nikolaos Syrmos**<sup>1</sup>, Georgios Gavridakis<sup>2</sup>
<sup>1</sup>Aristotle University of Thessaloniki, Thessaloniki, Greece, <sup>2</sup>Venizeleio Gen. Hosp., Heraklion, Crete, Greece.

## Paper 50: Postoperative Outcomes of Minimally Invasive Pedicle Screw Fixation for Treatment of Unstable Pathologic Neoplastic Fractures

Matthew Chin, MD, Jael Camacho, MD, **Jacob Bruckner**, **MD**, Daniel Cavanaugh, Eugene Koh, MD, PhD, Daniel Gelb, MD, Steven Ludwig, MD Univ. of Maryland, Baltimore, MD.

#### Paper 51: Spinal Lumbar Benign Tumors Treated by Full Endoscopic Interlaminar Approach

Marcio Ramalho Cunha, MD, Marcello Roberto Ramalho Cunha, MD, Marcia Luisa Monteiro Cunha, Guilherme Monteiro Cunha, Trauma Center, Natal, Brazil.