



2017 SPECIALTY DAY

MARCH 18, 2017 | SAN DIEGO, CALIFORNIA



Session II: Quick Tips and Tricks for High Energy Trauma – In 4 Slides Max!

8:40 am – 9:45 am

Moderators: Paul Tornetta, III, MD

9:15 am – 9:19 am ASIS Osteotomy for Pelvis/Acetabulum Exposure
H. Claude Sagi, MD

9:19 am – 9:23 am Reduction Techniques for Femoral Neck
Stephen L. Kates, MD

9:23 am – 9:27 am Long Bone Fractures in the Obese Patient
Matt Graves, MD

9:27 am – 9:31 am Proximal Tibial Nailing
Daniel S. Horwitz, MD

9:31 am – 9:35 am Discussion

Panel

OSTEOTOMY OF THE ANTERIOR SUPERIOR ILIAC SPINE FOR PELVIC AND ACETABULAR FRACTURE SURGERY.

H. CLAUDE SAGI

PURPOSE: To improve the exposure offered through the lateral window along the iliac crest (window #1) when performing open reduction internal fixation of acetabular and pelvic fractures.

BENEFITS:

- 1) Improved anterior exposure of the sacro-iliac joint
- 2) Improved exposure of the internal iliac fossa, psoas gutter, pubic root and anterior wall for acetabular fractures, without opening the middle window (#2).
- 3) Improved access to the posterior column and quadrilateral surface from the lateral window for reduction clamp placement.
- 4) Improved access to the retro-supra-acetabular bone for reduction clamp placement.
- 5) Decreased risk of injury to the Lateral Femoral Cutaneous Nerve (LFCN).

TECHNIQUE:

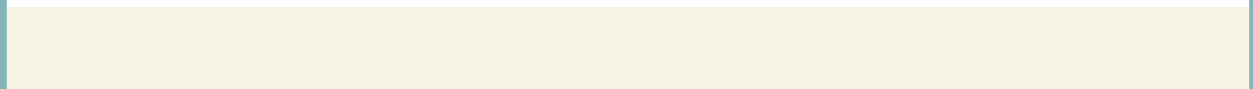
- 1) Leave the distal 2 cm of External Oblique attached to ASIS
- 2) Develop interval between Tensor Fascia Lata and Sartorius
- 3) Expose the LFCN
- 4) Elevate a small portion of TFL off the outer table to expose inter-spinous notch
- 5) Leave Sartorius attached to ASIS –resulting in a digastric osteotomy
- 6) Oscillating saw with irrigation or curved osteotome to perform the osteotomy from approximately 2cm proximal to ASIS into the inter-spinous notch
- 7) LFCN stays with Sartorius as it is retracted medially with ASIS and iliopsoas to expose the psoas gutter, pubic root and anterior wall (release rectus from AIIS)
- 8) Repair the osteotomy with a single 3.5mm lag-screw into the iliac tubercle. (I don't pre-drill it)
- 9) You will love it.

BIBLIOGRAPHY:

- 1) Reinert CM¹, Bosse MJ, Poka A, Schacherer T, Brumback RJ, Burgess AR. A modified extensile exposure for the treatment of complex or malunited acetabular fractures. *J Bone Joint Surg Am.* 1988 Mar;70(3):329-37.
- 2) Üzel M¹, Akkin SM, Tanyeli E, Koebke J. Relationships of the lateral femoral cutaneous nerve to bony landmarks. *Clin Orthop Relat Res.* 2011 Sep;469(9):2605-11.
- 3) Wagner M. [Osteotomy as access: iliac spine and iliac crest]. *Orthopade.* 2013 May;42(5):350-2, 354-5.
- 4) Kalhor M, Gharehdaghi J, Schoeniger R, Ganz R. Reducing the risk of nerve injury during Bernese periacetabular osteotomy: a cadaveric study. *Bone Joint J.* 2015 May;97-B(5):636-41.
- 5) Sagi HC, Bolhofner B. Osteotomy of the Anterior Superior Iliac Spine as an Adjunct to Improve Access and Visualization Through the Lateral Window. *J Orthop Trauma.* 2015 Aug;29(8):e266-9.



**HANDOUT COMING
SOON**



Goal: Obese patients create distinct challenges with respect to positioning, reduction, intraoperative imaging, and construct stability. The goal of this brief presentation is to provide 3 technical tips for improving outcomes in the obese trauma population.

Objective #1- Patient safety in positioning

- The anteroposterior (AP) view of the lower extremity is typically defined by a patella forward position. The weight and girth of a morbidly obese patient's limb leads to abduction and external rotation in resting supine posture. Overcoming this requires relatively large "bumping" of the hip on the operative side, leading to the center of mass of the patient shifting away from the operative side and towards the floor (depending on size of panniculus).
 - Solution- contralateral arm board or two positioned under the panniculus and opposite limb



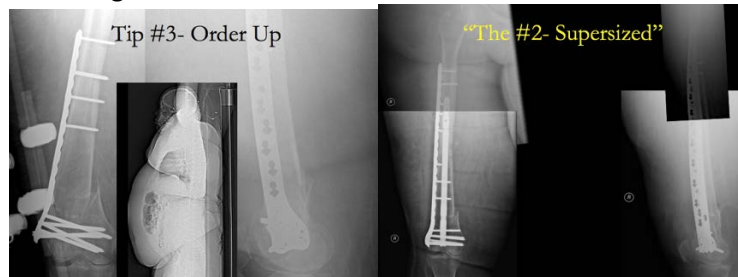
Objective #2- Improved access and visualization

- Weight is carried in different regions of the body. Patients with truncal obesity often have a pendulous panniculus that obscures the hip.
 - Solution- panniculus taping



Objective #3- Empowering construct stability

- Implant testing is required prior to FDA approval. Biomechanical testing is typically based on predicate devices. Devices are all built with a "factor of safety". This may not be clearly delineated.
 - Solution- creating an interlocked box via combination fixation



Proximal Tibial Nailing

OTA Specialty Day 2017

Fundamental Concepts:

1. Semiextended Nailing
2. Starting point
3. Reduction techniques – blocking techniques, clamp, plating
4. Augmentation of stability- screws, plates

[Injury](#). 2016 Oct;47(10):2087-2090. doi: 10.1016/j.injury.2016.07.024. Epub 2016 Jul 21.

Comparison between suprapatellar and parapatellar approaches for intramedullary nailing of the tibia. Cadaveric study.

[Zamora R](#)¹, [Wright C](#)², [Short A](#)³, [Seligson D](#)⁴.

[Injury](#). 2016 Apr;47(4):958-61. doi: 10.1016/j.injury.2015.12.025. Epub 2016 Jan 18.

Surgical approaches to intramedullary nailing of the tibia: Comparative analysis of knee pain and functional outcomes.

[Bakhsh WR](#)¹, [Cherney SM](#)², [McAndrew CM](#)², [Ricci WM](#)², [Gardner MJ](#)³

[J Orthop Trauma](#). 2014 May;28(5):245-55. doi: 10.1097/BOT.0000000000000082.

Semiextended intramedullary nailing of the tibia using a suprapatellar approach: radiographic results and clinical outcomes at a minimum of 12 months follow-up.

[Sanders RW](#)¹, [DiPasquale TG](#), [Jordan CJ](#), [Arrington JA](#), [Sagi HC](#)

Controversies in the Intramedullary Nailing of Proximal and Distal Tibia Fractures

Tejwani, Nirmal MD; Polonet, David MD; Wolinsky, Philip R. MD

Journal of the American Academy of Orthopaedic Surgeons:

[October 2014 - Volume 22 - Issue 10 - p 665–673](#)

doi: 10.5435/JAAOS-22-10-665

Instructional Course Lecture