Federal State Institution «Russian Research Institute of Traumatology and Orthopedics n.a. RR Vreden», Ministry of Health of the Russian Federation

Akademika Baykova street, 8
195427, St-Petersburg, Russia
Phone: (812) 556 08 28
Phone/FAX: (812) 550 79 01
www.rniito.org
info@rniito.org

Lectures, workshops, seminars & discussions
for the course

"Basic principles of long bone deformity correction according to Ilizarov"

(with the Ortho-SUV Frame hexapod module)

Course Chair:
Prof. Leonid N. Solomin
Faculty:
Assist. Prof. Elena A. Shchepkina
Assist. Prof. Fanil K. Sabirov
Konstantin L. Korchagin, MD, PhD
Dr. Saygid Rokhoev

Lectures

1. Modern external fixation. Limb lengthening and reconstruction surgery. Basic requirements for deformity correction.
2. Method of unified designation of external fixation
3. Basic biomechanical principles of external fixation
4. Atlas for insertion of wires and pins reference positions

5. Reference lines and angles (RLA). Normal lower limb alignment. Principles of X-Ray examination
6. Deformity analysis & correction planning
7. Equipment and Terminology. Principles of frame construction in deformity correction
8. Only the most important about osteotomies
9. Principles of long bone deformity correction using unified reduction units (Ilizarov hinges)
10. Basic Principles of upper limb long bone deformities correction
11. Acute vs. gradual deformity correction
12. Congenital vs. post-traumatic deformities correction

13. Postoperative care
14. Complications and solutions

15. Hexapod external fixators in bone deformities. Ilizarov vs. orthopedic hexapods
16. Ortho-SUV Frame hardware and software
17. Main principles of combined and consecutive use of external and internal fixation in long bone deformity correction

Workshops

1. Frontal plane measurements on normal tibia and femur bones
2. Sagittal plane measurements on normal tibia and femur bones
3. Frontal plane single-level tibia deformities correction planning using the 1st osteotomy rule
4. Frontal plane single-level femur deformities correction planning using the 1st osteotomy rule (anatomical and mechanical axes based)
5. Sagittal plane single-level tibia deformities correction planning using the 1st osteotomy rule (mid-diaphyseal and joint line based)
6. Sagittal plane single-level femur deformities correction planning using the 1st osteotomy rule (mid-diaphyseal and joint line based)
7. Frontal plane single-level tibia deformities correction planning using the 2nd osteotomy rule
8. Frontal plane single-level femur deformities correction planning using the 2nd osteotomy rule (anatomical and mechanical axes based)
9. Sagittal plane single-level tibia deformities correction planning using the 2nd osteotomy rule (mid-diaphyseal and joint line based)
10. Sagittal plane single-level femur deformities correction planning using the 2nd osteotomy rule (mid-diaphyseal and joint line based)
11. Planning the frame construction for tibia diaphyseal deformity correction
12. Planning the frame construction for femur diaphyseal deformity correction
13. Planning the frame construction for tibia metaphysical deformity correction
14. Planning the frame construction for femur metaphysical deformity correction

15. The main manipulations in the frame assembly. Osteotomies (Ilizarov, De Bastiani, Gigli's saw)
16. Correction of angular deformity using Ilizarov hinges (axial & virtual)
17. Correction of bone fragments translation using Ilizarov hinges (acute & gradual)
18. Correction of rotational deformity using Ilizarov hinges (acute & gradual)
19. Correction of complex deformity using Ilizarov hinges

20. Deformity correction using Ortho-SUV Frame

Seminars & Discussions

1. Tibia oblique plane deformity correction planning
2. The 2nd osteotomy rule
3. Multi-apex deformities evaluation, planning and correction. Peculiarities of the frame assembly
4. Correction planning at presence of torsion component
5. 3D planning deformity correction