

ExMex Forum

Berlin, Germany

26–27 March 2010



MIS and Navigation
▶ FUTURE TRENDS



EFORT ExMEx Forum Berlin 2010

MIS & Navigation: Surgery of Hip and Knee

Forum highlights

- MIS, navigation and robotic surgery - overview and future aspects
- MIS navigation in knee surgery - today's facts and tomorrows trends
- Rotation of knee implants
- MIS navigation in hip surgery - today's facts and tomorrows trends

Welcome



Fritz Uwe Niethard



Siegfried Götte



Wolfhart Puhl



Nikolaus Böhler

Dear Colleagues,

The EFORT ExMEx is now invited to Berlin for this is a tribute to one of the most exciting projects in the field of navigation. "OrthoMIT -- the orthopedic operating room of the future" is being developed at a number of German universities under the direction of Professor Niethard. "The acronym stands for "minimal-invasive orthopedic therapy" and is a joint research project, under German public research sponsorship, whose goal is to develop an integrated platform for minimal invasive interventions. Flexible modules for hip, knee and spinal surgery should make it possible to adapt therapeutic procedures to individual situations."

At the beginning of the ExMEx Forum, previous orthoMIT results will be introduced in three subgroups:

- Smart Intraoperative Imaging (themes, inter alia: Zero-Dose-C-Arm-Navigation, robot supported C-arm X-ray imaging, 3D ultrasonic imaging and referencing of MRT data for the completion and updating of intraoperative information)
- Smart Knee and Hip Surgery (themes, inter alia: marker-and-tracking free knee endoprosthesis; ultrasonic-based identification of landmarks for individual biomechanical planning models; modular sterilizable 5DOF-minirobot for minimally invasive hip-revision prosthesis, knee endoprosthesis and endoscopy spinal surgery)
- Smart Integration (themes, inter alia: OP table steering for the reduction of performance limiting body posture; innovative operating concept through remote pointer)

The heading over this could read 'optimization through integration'. It is a matter not just of an ultramodern OP table itself, but rather of all the encompassing processes that unfold prior to the operating room as well

We are very much looking forward to the exchange of leading and incoming experts in the field of navigation and robotic surgery.

F. U. Niethard
Secretary General
DGOOC

S. Götte
President
BVOU

W. Puhl
Past President
EFORT

N. Böhler
Chairman
EFORT ExMEx Fora

Programme

26 March 2010

| Schedule | Topic | Moderator / Speaker |
|----------|--|--|
| 7:30 | Registration | |
| 8:40 | Opening and welcome | F. U. Niethard, M. Szendrői |
| 8:50 | About EFORT | M. Szendrői |
| | MIS - NAVIGATION AND ROBOTIC SURGERY: OVERVIEW AND FUTURE ASPECTS | F. U. Niethard, M. Szendrői |
| 9:00 | MIS, navigation and robotic surgery of hip, knee and spine: Introduction of the orthoMIT approach | J. Ohnsorge |
| 9:15 | Has MIS an economic profit? Results from the orthoMIT knee application | A. Zimlong |
| 9:30 | Does MIS automatically require navigation? | N. Confalonieri |
| 9:45 | How exact is exact enough in navigation | L. Joskowicz |
| 10:00 | Miniaturised mechatronic / sensor integrated instruments | K. Radermacher |
| 10:15 | Coffee break | |
| 10:45 | Integrated surgical workstation | B. Ibach |
| 11:00 | 3D-Imaging | W. A. Kalender |
| 11:15 | Matching of ultrasound and other imaging techniques | G. Schmitz |
| 11:30 | Ultrasound based navigation systems | W. Blömer |
| 11:45 | MIS & Navigation compulsory link | F. Picard |
| 12:00 | Plenum Discussion | |
| 12:45 | Lunch | |
| | MIS NAVIGATION IN KNEE SURGERY: TODAY'S FACTS AND TOMORROW TRENDS | N. Böhler, M. Marcacci |
| 13:45 | Navigated osteotomies around knee joint | P. Belei |
| 14:00 | Computer assisted Osteotomies for genu varum deformity: Which osteotomy for WHICH varus? | D. Saragaglia |
| 14:15 | MIS in TKA: The key to success! | A. Halder |
| 14:30 | MIS in TKA: A risk factor for early failure! | J. N. Argenson |
| 14:45 | Computer assisted surgery in TKA | J. Victor |
| 15:00 | MIS in unicondylar knee replacement | N. Böhler |
| 15:15 | MIS HTO | J. Y. Jenny |
| 15:30 | Plenum Discussion | |
| 16:15 | Coffee break | |

Programme

26 / 27 March 2010

| Schedule | Topic | Moderator / Speaker |
|----------|--|-------------------------------|
| | ROTATION OF KNEE IMPLANTS | W. Puhl, J. Romero |
| 16:45 | Interindividual variation of rotational axis in navigated TKA | T. Mattes |
| 17:00 | Femur and Tibiarotation in TKA | S. Hofmann |
| 17:15 | Knee stability before and after total and unicondylar knee replacement: In vivo kinematic evaluation utilizing navigation | M. Marcacci |
| 17:30 | Knee prosthesis Surgery: the value of CAOS | R. G. H. H. Nelissen |
| 17:45 | CT analysis of leg alignment and early clinical outcome after navigated vs conventional TKA | M. Oberst |
| 18:00 | Biomechanical background and clinical observations of rotational malalignment in TKA | J. Romero |
| 18:15 | Variance of identification of femoral epicondyles in navigated total knee arthroplasty | G. Matziolis |
| 18:30 | Plenum Discussion | |
| 20:00 | Social Event | |

| Saturday 27 March | | |
|--------------------------|---|---|
| 8:00 | LIVE OPERATION – NAVIGATED MIS KNEE ENDOPROSTHESIS | G. Matziolis |
| | MIS NAVIGATION IN HIP SURGERY: TODAY'S FACTS AND TOMORROW TRENDS | K. P. Günther G. Macheras |
| 9:00 | MIS and navigation in Triple Osteotomy: smaller could be better! | K. P. Günther |
| 9:15 | MIS in the hip joint | C. Perka |
| 9:30 | Combination of navigation and MIS in THA | M. Krismer |
| 9:45 | MIS, robotic surgery and navigated hip resurfacing: yet to be proven? | J. Cobb |
| 10:00 | Neck preservation (TSS), modularity and computer: the perfect marriage? | N. Confalonieri |
| 10:15 | Modular implants: useful tools for navigation and MIS? | P. Merloz |
| 10:30 | Navigation in hip revision? | D. C. Wirtz |
| 10:45 | Microhip and navigation: new techniques for everybody? | J. Grifka |
| 11:00 | Coffee break | |
| 11:30 | PRO / CONTRA MIS & NAVIGATION | M. Krismer (pro) N. Confalonieri (con) |
| 12:30 | Closing Remarks / End of the meeting | |

EFORT Education Committee

E. Caceres Palou, Barcelona, Spain - Chairman EFORT education committee

Scientific Committee

F. U. Niethard, Aachen, Germany - Secretary General DGOOC

S. Götte, Unterhaching, Germany - President BVOU

W. Puhl, Oberstdorf, Germany - EFORT Past President

N. Böhler, Linz, Austria - Chairman EFORT ExMEx Fora

Faculty

Argenson, J. N.

Belei, P.

Blömer, W.

Böhler, N.

Cobb, J.

Confalonieri, N.

Grifka, J.

Günther, K. P.

Halder, A.

Hofmann, S.

Ibach, B.

Jenny, J. Y.

Joskowicz, L.

Kalender, W. A.

Krismer, M.

Macheras, G.

Marcacci, M.

Mattes, T.

Matziolis, G.

Merloz, P.

Nelissen, R. G. H. H.

Niethard, F. U.

Oberst, M.

Ohnsorge, J.

Perka, C.

Picard, F.

Puhl, W.

Radermacher, K.

Romero, J.

Romero, J.

Saragaglia, D.

Schmitz, G.

Szendrői, M.

Victor, J.

Wirtz, D. C.

Zimolong, A.



Course Fees

Early registration :
EUR 380.00 incl. VAT

ExMEx dinner (optional):
EUR 75.00 incl. VAT

Early registration deadline:
10 March 2010

Onsite registration:
EUR 410.00 incl. VAT

Organisation

EFORT
Patrick Collet
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Venue

Langenbeck-Virchow-Haus
Luisenstr. 58/59
10117 Berlin (Mitte)

Auditorium

Registration and accommodation

www.efort.org/exmex/berlin2010

Opening

Friday, 26 March 2010, 07.30 - 19.30
Saturday, 27 March 2010, 07.30 - 13.00

Congress language

English - no simultaneous translation

in collaboration with:

OIC
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Credits

15 CME credits
"preliminary"

Patronages



DGOOC



BVOU

orthoMIT
Minimal-invasive Orthopädische Therapie



DGOU Deutsche Gesellschaft für
Orthopädie und Unfallchirurgie