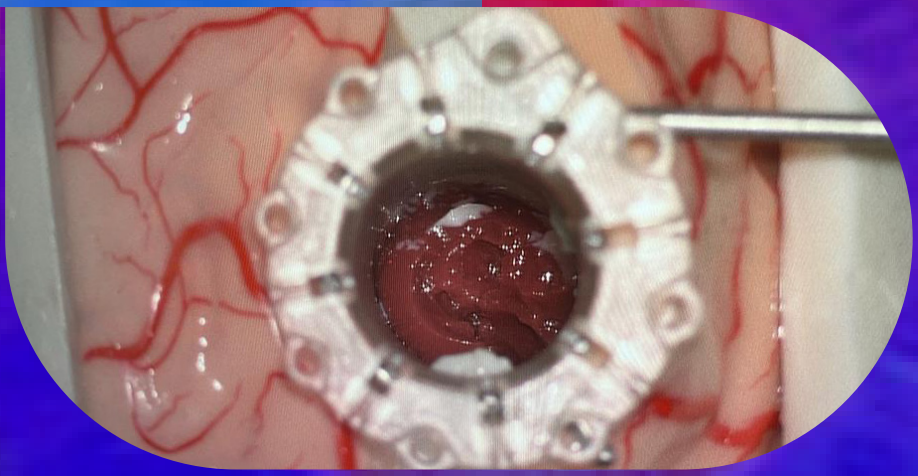
MINIMALLY INVASIVE PARAFASCICULAR SURGERY (MIPS)

AN EXOSCOPE PRACTICAL HANDS-ON INSTRUCTIONAL COURSE

27 October, 2023
Practical Neuroanatomy Laboratory
Hospital de la Ribera. Alzira (Valencia) Spain

Using
Hematoma - Brain ALA Simulation Models



"Official NICO Corporation MIPS Education Program"

PRE CONGRESS - COURSE
31 Congreso Sociedad de Neurocirugía de Levante de las Comunidades de Valencia y Murcia
(Parador de Jávea, 28 October 2023)

SOCIEDAD DE NEUROCIRUGÍA DE LEVANTE DE LAS COMUNIDADES DE VALENCIA Y MURCIA

MINIMALLY INVASIVE PARAFASCICULAR SURGERY (MIPS)
AN EXOSCOPE PRACTICAL HANDS-ON INSTRUCTIONAL COURSE

Organizer

Dr. José Piquer
Jefe de Servicio de Neurocirugía
Hospital de la Ribera. Alzira. Valencia (Spain)

Special Guests

Dr. Ranjeev Bhangoo
Clinical Director for Neuroscience
King's College Hospital. Londres (England)

Dr. Pablo Gónzalez
Neurosurgeon at Hospital General Universitario
Associate Professor, University Miguel Hernandez
Alicante (Spain)

Dr. Rubén Rodríguez
Neurosurgeon at Hospital de la Ribera
Alzira. Valencia (Spain)

Prof. Walter Stummer
Director of the Department of Neurosurgery of the
University Hospital Münster (Germany)

Dr. Juergen Konczalla
Associate Professor of Neurlogica Surgery
Goethe-Universität Frankfurt am
Main. (Germany)

Organization

Neurosurgical Unit.
Hospital Universitario de la Ribera.
VIU-NED Neuroscience Chair

WORKSHOP DESIGN

Minimally invasive parafascicular surgery combines key concepts in access with novel technologies for minimally disruptive surgical intervention. Applicable with a variety of visualization platforms, including the exoscope, the BrainPath tubular access system allows for transsulcal, parafascicular access to intracerebral hematomas, tumors, and other deep lesions in the brain with the goal of reducing the amount of trauma to normal brain and white matter tracts.

This workshop has been designed to provide neurosurgeons with the opportunity to enhance his/her skills in exoscopic minimally invasive surgery with MIPS and BrainPath. Additionally, we will discuss the impact of 5-ALA-induced fluorescence in appropriate patients with the goal of achieving higher extent of resection/evacuation and lower ischemic complications. By attending this workshop, participants will have the opportunity to gain and expand their knowledge regarding exoscopic applications and parafascicular surgery in tumors and hematomas.

OBJECTIVES

This intensive hands-on skills workshop will provide ample opportunity for:

- Discussion surrounding lateral and medial white matter anatomy and practice identifying appropriate surgical corridors for MIPS.
- Mastery of surgical removal of hematoma through an automated resection device and controlling light delivery at the target.
- Bi-manual microsurgical techniques through a narrow corridor under exoscopic visualization.
- Application of 5ALA enhancing glioma educational models.

GENERAL INFORMATION

Workshop location

This workshop will be conducted at the Antomical Practical Laboratory Hospital Universitario La Ribera located at Alzira (Valencia-Spain).

Tuition fee Includes

500 euros

- o Course Materials & Syllabus
- o Lunch & Refreshment Breaks
- o Session and Materials in Laboratory per Attendee:
  - Exoscope and surgical demonstration with 3D exoscope.
  - UpSurgeOn Lobar Hemorrhage Resection Models.
  - Myriad NOVUS Resection and Light Delivery System.
  - 5ALA demonstration with exoscope in UpSurgeOn Glioma ALA Box Model.
  - Micro platform:
    - Microsurgical instruments: forceps, needle holders, microscissors, 1 clip
    - Leather case for instruments
    - Surgical loupes with LED light
    - Brain and muscle pads

REGISTRATION FORM

Name: _____

Mailing Address: _____

_____

City/State: _____

Country: _____ Country Code: _____

Phone: _____ Fax: _____

E-mail: _____

MORNING

07:45 **WELCOME & INTRODUCTION**
Dr. José Piquer

8:00-10:00 **NEUROANATOMY FOR PARAFASCICULAR BRAIN SURGERY**
Dr. Pablo González and Dr Rubén Rodríguez

LECTURES:

A Systems Approach for subcortical abnormalities: Lateral & Medial white matter anatomy and common surgical corridors for minimally invasive parafascicular surgery.

– Lateral Aspect of Cerebral Hemisphere I

Fiber track anatomy of the lateral aspect related to minimally invasive surgical corridors: short association fibers, superior longitudinal fasciculus, inferior occipitofrontal fascicle, internal capsule and corona radiata.

– Lateral Aspect of Cerebral Hemisphere II

Understanding the tridimensional orientation and relation between the surface cortical anatomy, basal ganglia and white matter tracts on the lateral aspect of the cerebral hemisphere.

– Medial Aspect of Cerebral Hemisphere I

Description of anatomical structures related to BrainPath common surgical corridors including the cingulate tract, callosal fibers and thalamic radiations.

– Medial Aspect of Cerebral Hemisphere II

Understanding the lateral and third ventricular anatomy based on white matter fiber dissection.

10:00-10:30 COFFEE BREAK

10:30-12:30 **MIPS SURGERY REVIEW**
Dr. Ranjeev Bhangoo and ICH Expert

- Introduction to MIPS.
- Case Experience and Current Evidence.
  – Tumor
  – Vascular (ICH)
- Patient Case Selection & Early Case Guidance.

MORNING

12:30-14:30 EXOSCOPE TECHNIQUE AND MICRO NEUROSURGERY

Lecture-Demo: Dr. Juergen Konczalla
Demonstration of a high-3D/4k Exoscope Defintion Exoscope System for Neurosurgery.

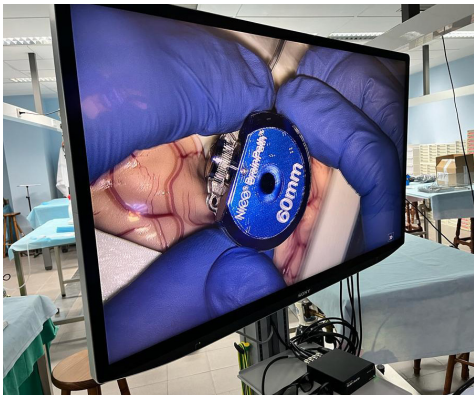
- From the Microscope - Endoscope to Exoscope
- Basic Principles & History
- Experimental Applications
- Clinical Experience

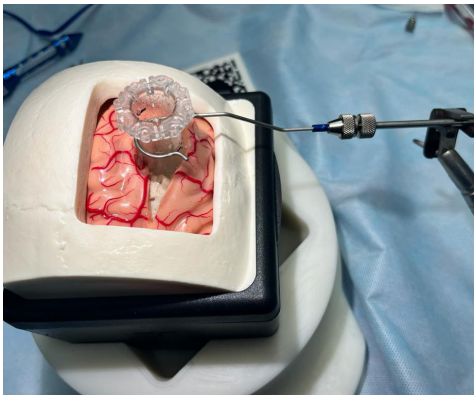
PRACTICAL I
EXOSCOPE MICROSURGERY TECHNIQUE

Hands-on
Guided by **Dr. Juergen Konczalla**

EXOSCOPE Micro Anastomosis with Micro BOX Simulation model (UpSurgeON). Practice different anastomoses techniques on 1mm/2mm life like vessels with blood flow. Easy switch from an anastomoses to a microsuture exercise. The simulation is designed to provided the most hyperrealistic training experience ever thanks to a blood flow simulation for leak test.

14:30-15:30 LUNCH





AFTERNOON

15:30-18:00 MIPS TRAINING WITH NICO MYRIAD AND BRAINPATH TECHNOLOGY USING EXOSCOPIC VISUALIZATION

PRACTICAL II
HANDS-ON MIPS EXOSCOPE USE IN BRAIN HEMATOMAS

Lecture-Demo: Dr. Ranjeev Bhangoo
Our experience of the Minimally Invasive Parafascicular approach with practical tips.

Hands-on
Guided by **Dr. Ranjeev Bhangoo**

NICO BrainPath (MIPS) Full System practice with Exoscope on UpSurgeOn ICH models.
The intraparenchymal hematoma Box (UPSurgeON model) allows to perform an exoscopic clot evacuation of hematoma using BrainPath retractor and Myriad Novus aspiration.

PRACTICAL III
HANDS-ON MIPS EXOSCOPE GLIOMA ALA RESECTION SIMULATION

Lecture-Demo: Dr. Walter Stummer
Tips and Tricks in exoscopic 5-ALA fluorescence-guided surgery of CNS tumours.

Hands-on
The BrainTumor Ala Box (UPSurgeON model) allows you to practice resection of an intraparenchymal glioblastoma with epicenter in the frontal white matter. Once the lesion mass is reached, a fluorescence-guided (5ALA) tumor simulation can be performed.

18:00 FINAL REMARKS. ADJOURN

SECRETARÍA TÉCNICA

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COLABORAN: