



FACULTY

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Hospital Universitario de la Ribera. Alzira, Valencia

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Aga Khan University Hospital. Nairobi. Kenya



SENEC III Hands-on Course

“ Anatomy and Surgical Strategies
in Intracranial & Skull Base
Endoscopic Surgery ”

University of Alicante (Campus Sant Joan)
26-28 September 2013



COURSE DIRECTORS

Dr. Bartolomé Oliver
-Barcelona Neuroinstitut. C M Teknon-

Dr. José Piquer
-Secretary SENE-

Special Guest Faculty

Dr. Humbert Massegur
ENT Surgeon
-Barcelona Neuroinstitut. C M Teknon-

COORDINATION

Dr. Jaime Lloret
-University of Alicante-

In collaboration with Portuguese Neurosurgical Society
A SENE / SPNC project

September 26th

Thursday



07:45 Welcome & Course review.
Dr. B. Oliver & J. Piquer.

08:00-08:30
Impact of Neuroendoscopy in Neurosurgery.
Dr. M.A. Arraez.

08:30-09:00
Neuroendoscopy Technique Review.
Dr. E. Ferrer.

Topics: Keeping Images Upright.
Manipulating Scope.
Scope Orientation.
Navigational "Obstacle Course" to test Attendees Skill Choice of Endoscopic.
Equipment and basic OR Set-up.

INTRACRANIAL NEUROENDOSCOPY, ANATOMY AND TECHNIQUE

Intracranial Endoscopy

09:00-09:30
Basic Anatomy of the Ventricles.
Dr. J. Lloret. / Dr. J. Abarca.

09:30-10:00
Endoscopic Third Ventriculostomy (ETV).
Dr. E. Ferrer / Dr. J. Miguens.

Tricks and trucks.
Variation in Anatomy for ETV.
Endoscopic classification of Hydrocephalus.
Non-ETV applications of Intracranial Endoscopic: Tumors, Cysts, Aqueductal Plasty.

10:00-13:00 **Hands-On:**
ETV, septum pellucidotomy, Aqueductal Plasty...

Endoscopic Assisted microneurosurgery

13:00-13:30
Keyhole Concepts in Neurosurgery and Application of Endoscopy.
Dr. E. Ferrer.

13:30-14:30 **LUNCH**

14:30-15:00 **Special Lecture:**
Impact of Mobile Endoscopy on Neurosurgical Development in East Africa.
Dr. M. Qureshi.



Session 4

Midline inferior extended approach.

14:30 **Lectures:**

3D Endoscopic Anatomy.
Petrous Apex and carotid artery. Clivus anatomy and Craniovertebral junction.
Odontoidectomy.
Dr. Eugenio Cárdenas.

15:30

Anatomical Prosection: Transdorsum sellae approach with pituitary superior transposition. Transclival approach..

Transodontoid approach. Landmarks recognition for transcondylar, lateral infrapetrous and parapharyngeal approaches.
Dr. B. Oliver & Dr. Humbert Massegur (ORL).

17:00-19:00 **Hands-On:**

Anatomical Dissection: Intraoperative Navigational Device, Intraoperative Doppler.

OBJECTIVES:

Complete transclival approach, superior, middle and inferior.
Trainees in advanced level could proceed to a secondary objective: Transodontoid Approach.

19:00 **Final Lecture: take-home messages.**

Dr. B. Oliver & Dr. Humbert Massegur (ORL).

- * Choosing the Best Approach. Multicorridor Surgery.
- * Prevention and Management of Complications.

19:00 **Adjourn Course**

Session 1

Standard sellar approach for pituitary surgery

09:30 **Lectures:**

3D Endoscopic Anatomy.
Expanded endoscopic endonasal approach: definitions.
Nasal cavity and paranasal sinuses.
Sellae and Pituitary gland.
Dr. Eugenio Cárdenas.

10:00

Anatomical Prosection: Nasal endoscopic anatomy recognition.
Sellar approach (uni-binostril). Mucosal flap planning and harvesting.
Medial cavernous sinus approach.
Dr. B. Oliver & Dr. Humbert Massegur.



11:30-13:30 **Hands-On:**

Anatomical Dissection: Intraoperative Navigational Device,
Intraoperative Doppler, High-Speed Drill; Endoscopy System.

OBJECTIVES:

Standard sellar approaches and mucosal flaps reconstruction.

Trainees in advanced level could proceed to a secondary objective:
inferior hypophyseal artery identification and limited superior
clival approach.

13:30-14:30 LUNCH

Session 2

Midline superior extended approach.

14:30 **Lectures:**

Pure endoscopic sellar pathology treatment: tricks and trucks
after 250 procedures
Dr. Josue Pereira

15:00

3D Endoscopic Anatomy.
Nasosinusal anatomy. Ethmoidal anatomy and its relationship with
Anterior Skull Base.
Dr. Ariel Kaen.

15:30

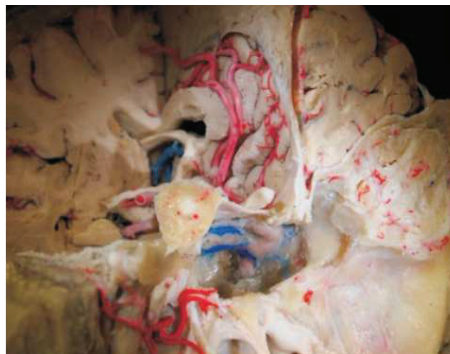
Anatomical Prosection: Anterior and posterior ethmoidectomy, anterior
and posterior ethmoidal arteries identification. Orbital wall and optic
nerve recognition. Frontal sinus ostium recognition. Approaches:
transplanum and transcribriform.
Dr. B. Oliver & Dr. Humbert Massegur.

17:00-19:00 **Hands-On:**

Anatomical Dissection: Intraoperative Navigational Device,
Intraoperative Doppler, High-Speed Drill; Endoscopy System.

OBJECTIVES:

Suprasellar/Transplanum Approach; Medial Orbital Decompression
landmarks; Optic Nerve Decompression landmarks; Transcribriform
approach; Frontal Sinus App. (Draf type III Procedure) landmarks.
Craniotomy-endoscopic combined approach advantages and
disadvantages.



September 28th

Saturday



Session 3

Coronal plane extended approach

08:00 Lectures:

3D Endoscopic Anatomy.
Maxillary sinus. Sphenoid and palatine bone anatomy, pterygo-palatine fossae, pterygoid process. Cavernous sinus. Meckel's Cave.
Dr. Ariel Kaen.

09:00

Anatomical Prosection: Transmaxillary Approach, sphenopalatine artery ligation, V2 identification, vidian nerve exposure. Lateral wall of the cavernous sinus, petrous and paraclival carotid.
Dr. B. Oliver & Dr. Humbert Massegur.

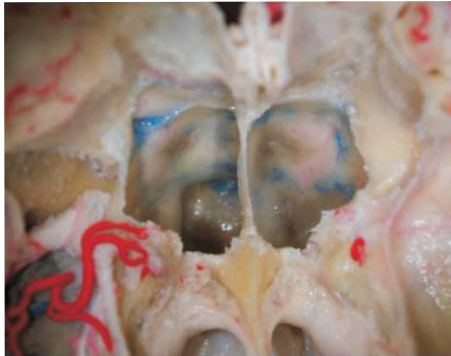
11:00-13:30 Hands-On:

Anatomical Dissection: Intraoperative Navigational Device, Intraoperative Doppler.

OBJECTIVES:

Transpterygoid Approach for lateral cavernous sinus approach, landmarks recognition for Meckel's Cave approach (suprapetrous), paraclival carotid artery and petrous apex approach.

13:30-14:30 LUNCH



15:00-17:00 Hands-On:

Endoscopic Assisted microneurosurgery Applications

Posterior Fossa Microvascular Decompression of Anterior Cerebral Arterial System by lateral and anterior corridor, Dissection of Pineal Area.

FROM MICRO TO ENDOSCOPE TO EXOSCOPE

17:00-17:30

From the Microscope to the Endoscope and Exoscope: A high-Definition Exoscope System for Neurosurgery.

Dr. J. Piquer.

17:30-19:00 Hands-On:

Telescope Teaching of Endoscopy.

Comparative Microscopic and Exoscope dissection of Sulcus and Gyrus, Sylvian fissure, Interhemispheric area, CPA angle.

Exoscope is an alternative and exciting new platform for the performance some routine microsurgical procedures and excellent tool to learn micro endoscopic technique dissection.

September 27th

Friday



ENDONASAL ENDOSCOPIC SKULL BASE AND PITUITARY SURGERY

08:00 First's Lectures:

Basic principles to begin with endonasal endoscopic surgery.

Dr. B. Oliver & Dr. Humbert Massegur (ORL).

Endoneurosurgery Suite, Equipment, Instrumentation. Endoscopic Pituitary Surgery advantages. Reconstruction of Dural Defects. Two surgeons microsurgical bimanual technique.

09:00

3D Anatomy. Correlación intracraneal-endonasal.

Dr. Javier Abarca.

