“SKULL BASE ENDOSCOPIC SURGERY”

WORKSHOP
(Live surgery and hands-on lab dissection)

FROM CRISTA GALLI TO CRANIO - CERVICAL JUNCTION

NICE (France) 27th – 29th JUNE 2012

Course Directors
Dr. Salvatore Chibbaro (FR)
Prof. Sebastien Froelich (FR)
Prof. Philippe Paquis (FR)

Guest Speakers
Prof. Luigi Cavallo (IT)
Prof. James Evans (USA)
Prof. Stephan Gaillard (FR)
Dr. Juan Carlos Miranda (USA)
Prof. Christian Debray (FR)
Prof. Bernard George (FR)
Prof. Henri Dufour (FR)
Prof. Emmanuel Jouanneau (FR)
Dr. Damien Bresson (FR)
Dr. Hussien El-Maghraby (UK)
Dr. Ahmed Shahzada (UK)
Dr. Ivan Radovanovic (SW)
Prof. Philippe Herman (FR)

Under the auspices of:
SIACH (The International Society of Surgical Anatomy) Bristol (UK)
E.S.B.S - European Skull Base Society

Dear colleagues and friends,
It is our honour and privilege to invite you to attend the 2nd international skull base endoscopy course taking place in Nice on 27-29th June, 2012.

The aim of this live surgery and hands-on lab dissection course is to update neurosurgeons and ENT on the advances and most recent achievements in this rapidly growing field.

The course thanking a combination of didactic lectures, case discussions, video-clips live surgery and especially hands-on lab dissection will highlight different experiences enhancing collaboration within neurosurgeon and ENT to further progress in this fascinating domain.

We look forward to meeting you in Nice where you will not only enjoy the academia at our course but also the full French experience as a city like Nice may offer.

Dr. Salvatore Chibbaro  
Prof. Sebastien Froelich  
Prof. Philippe Paquis
8:00 - 9:00 am  Participants Registration

9:00 – 9:15 am  Welcome and Course Presentation:  
Salvatore Chibbaro MD

9:15 – 1:00 pm  Live surgery of 2 -3 pituitary case by “Stephan Gaillard”  
Hopital Foch Paris France.

1:00 pm  Lunch break

1:45 – 2:15 pm  Skull base surgery from open to purely endoscopic approaches:  
Indications, strategy, Aptitude and Philosophy. “The challenge”  
Bernard George MD

2:15 – 2:55 pm  Endonasal steps and approaches  
Philippe Herman MD  
▪ Antrostomy  
▪ Ethmoidectomy  
▪ Sphenopalatine Artery Ligation  
▪ Frontal Sinusotomy  
▪ Medial Orbital Decompression  
▪ Pterygopalatine and infratemporal fossa exposure

2:55 – 3:15 pm  Endonasal steps and approaches  
Ahmed Shahzada MD  
▪ Optic Nerve Decompression  
▪ Ethmoid Artery Ligation

3:15 - 4:15 pm  Approaches to the Sella  
Luigi Cavallo MD  
Nasal corridors  
Trans-sellar Approach  
Christian Debry MD

Supra sellar lesions: endonasal endoscopic management of cranioopharingiomas  
Henri Dufour MD

Skull base surgery: indication for and limitations of the endoscopic approach  
Hussien El-Maghraby MD

4:15 pm  Break

4:35 - 5:15 pm  Reconstruction of Dural Defects  
Christian Debry MD  
Ahmed Shahzada MD  
Luigi Cavallo MD

5:15 - 6:00 pm  Hemostasis in and through the nose – “Round table with all faculty”
6:00 – 6:30 pm  Evolution of Trans-sphenoidal Surgery: from microsurgery to endoscopy; The Foch Hospital Experience
   Stephane Gaillard MD

6:30 – 6:50 pm  Less invasive surgery for cerebral aneurysms: concepts, advances and limits
   Ivan Radovanovic MD

6:50 - 7:00 pm  Participants questions, adjournment
Thursday 28th JUNE

8:30 am  Endoscopic Suite: Equipment and Instrumentation
         Salvatore Chibbaro MD

9:00 am  3D Anatomy of sphenoid, sella and all related structures
         Juan Carlos Miranda MD

9:45 am  Hands-On Cadaver Lab Dissection
         Anatomical Dissection
         • Intransal Landmarks
         • Middle Turbinates
         • Septal Mucosal Flap
         • Sphenoidotomy
         • Transnasal Approaches for Pituitary Surgery

1:00 pm  Lunch break

2:00 pm  Upper Sagittal Plane Modules I: Pituitary, Transplanum, and
         Transcribriform
         Luigi Cavallo MD

2:30 pm  Lower Sagittal Plane Modules II: Transpterygoid
         Damien Bresson MD

3:00 pm  Hands-On Cadaver Lab Dissection
         Anatomical Dissection
         • Antrostomy
         • Ethmoidectomy
         • Sphenopalatine Artery Ligation
         • Medial Orbital Decompression
         • Optic Nerve Decompression
         • Suprasellar/Transplanum Approach
         • Ethmoid Artery Ligation
         • Frontal Sinusotomy
         • Anterior Craniofacial Resection

7:00 pm  Course Adjournes

8:30 Gala Dinner
1. **Identification of the following intranasal landmarks**: inferior turbinate, middle turbinate, superior turbinate, middle meatus, hiatus semilunaris, uncinate process, bulla ethmoidalis, sphenoid rostrum, sphenoid ostium

2. **Resection of the middle turbinates.**

3. Elevation of a unilateral **septal mucosal flap**: the flap should be pedicled on the ipsilateral posterior nasal artery. Displace the flap into the nasopharynx during endoscopic skull base procedures.

4. **Endonasal approaches for pituitary surgery.** Transection of the bony nasal septum and expose the sphenoid rostrum. Removal of the rostrum and open sphenoid air cells. Enlarge the opening maximally in all directions. Resect the posterior edge of the nasal septum to enhance bilateral exposure. Identify sphenoid sinus landmarks: planum sphenoidale, optic canal, lateral optic-carotid recess, carotid canal, medial optic-carotid recess, sella, clival recess. Remove sphenoid septations and note relationship to carotid canal.

5. **Pituitary.** Open the sella up to the margins of the cavernous sinus; remove sphenoid rostrum inferiorly and determine how it improves access to the sella.

6. Perform a middle meatal **antrostomy** on each side. Remove the uncinate process and enlarge the opening posteriorly and inferiorly. Learn how to preserve the sphenopalatine arteries.

7. **Ethmoidectomy.** Open the bulla ethmoidalis and remove anterior ethmoid air cells in an anterior to posterior direction. Identify the lamina papyracea. Expose the nasofrontal recess and identify the anterior ethmoid artery. Repeat the ethmoidectomy on the opposite side.

8. **Sphenopalatine artery ligation.** Expose the sphenopalatine artery as well as the posterior nasal arteries and learn how to transect them.

9. **Medial orbital decompression.** Make an opening in the lamina papyracea and remove the medial orbital wall from the fovea ethmoidalis superiorly to the orbital floor and as far posterior as the anterior wall of the sphenoid sinus.

10. **Optic nerve decompression.** Decompress the orbital apex and follow the optic canal posteriorly. Use the drill to thin the bone over the optic nerve without exposing the carotid artery.

11. **Suprasellar/transplanum approach.** Thin down and remove the bone of the planum sphenoidale. Thin down and remove bilaterally the bone of the “tuberculum strut”. Open the suprasellar dura and identify the optic chiasm, infundibulum, and ICA.

12. **Anterior and posterior ethmoid artery ligation.** Elevate the periorbita along the skull base and identify the anterior and posterior ethmoidal arteries.

13. **Frontal sinusotomy.** Resect the anterior nasal septum superiorly, anterior to the middle turbinates. Remove the floor of the frontal sinuses across the midline and anterior to the crista galli.

14. **Anterior craniofacial resection.** Resect the superior attachment of the nasal septum from the crista galli to the sphenoid. Resect attachments of middle turbinates. Thin and remove bone of anterior cranial base from ethmoid roof laterally and to planum sphenoidale posteriorly. Drill out crista galli. Incise dura bilaterally and then transect the falx attachment.
anteriorly. Reflect the dura posteriorly and identify olfactory bulbs. Elevate olfactory tracts and transect nerves posteriorly. Identify the interhemispheric fissures, frontopolar vessels, and anterior communicating artery.

**FRIDAY 29th June 2012**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am</td>
<td><strong>3D anatomy of the clivus and cranio-cervical junction</strong>&lt;br&gt;Juan Carlos Miranda MD</td>
</tr>
<tr>
<td>8:30 am</td>
<td><strong>Transclival approaches</strong>&lt;br&gt;Salvatore Chibbaro MD</td>
</tr>
<tr>
<td>9:00 am</td>
<td><strong>Sagittal Plane Modules III: Transodontoid</strong>&lt;br&gt;James Evans MD</td>
</tr>
<tr>
<td>9:30 am</td>
<td><strong>Hands-On Cadaver Lab Dissection</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Anatomical Dissection</strong>&lt;br&gt;Transclival Approach (Extradural/Intradural)&lt;br&gt;Transodontoid Approach</td>
</tr>
<tr>
<td>1:00 pm</td>
<td><strong>Lunch break</strong></td>
</tr>
<tr>
<td>1:45 pm</td>
<td><strong>Endoscopic approach to the cavernous sinus</strong>&lt;br&gt;Sebastien Froelich MD</td>
</tr>
<tr>
<td>2:15 pm</td>
<td><strong>Endoscopic approach to petrous apex and meckel's cave</strong>&lt;br&gt;Emmanuel Jouanneau MD</td>
</tr>
<tr>
<td>2:45 pm</td>
<td><strong>Combined transcranial and endoscopic approach</strong>&lt;br&gt;Sebastien Froelich MD</td>
</tr>
<tr>
<td>3:15 pm</td>
<td><strong>Hands-On Cadaver Lab Dissection</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Anatomical Dissection</strong>&lt;br&gt;Transpetrous Approaches__&lt;br&gt;Cavernous Sinus Approaches</td>
</tr>
<tr>
<td>6:30 pm</td>
<td><strong>Conclusion, course remarks, farewell.</strong>&lt;br&gt;Salvatore Chibbaro - Sebastien Froelich -. Philippe Paquis</td>
</tr>
</tbody>
</table>
ANATOMICAL DISSECTION SCHEDULE (29th June 2012)

1. **Posterior clinoids.** Elevation of the pituitary gland and drilling the posterior clinoids.

2. **Transclival approach (extradural).** Remove part of the clivus to expose the dura from the sphenoid to the mid-clivus.

3. **Transclival approach (intradural).** Open the dura to expose the vertebral and basilar arteries.

4. **Transodontoid approach.** Remove the soft tissues between the Eustachian tubes to the level of the soft palate. Remove cortical bone of the clivus from the sphenoid floor to the foramen magnum. Remove the lower edge of the clivus (foramen magnum). Expose the anterior ring of C1 and remove the central its portion. Drill the odontoid down to the level of the body of C2.

5. **Reconstruction with mucosal flap.** Position mucosal flap in different areas of the skull base to see limits of reach and surface area of reconstruction.

6. **Transorbital approach.** Learn how to incise the periorbita and identify medial rectus muscle. Dissect between medial and inferior rectus muscles and identify orbital apex structures.

7. **Medial petrous apex.** Drill the bone medial and deep to the ICA at the level of the clival recess. Open air cells of the petrous apex. Identify the course of the 6th cranial nerve.

8. **Transpterygoid approach.** Transect the sphenopalatine and posterior nasal arteries and open the pterygopalatine space. Elevate the soft tissue to expose the bone of the base of the pterygoid plates. Identify the vidian artery and nerve.

9. **Exposure of petrous ICA.** Drill the bone inferior and medial to the vidian artery and follow the vidian artery to the 2nd genu of the internal carotid artery.

10. **Middle fossa approach (suprapetrous).** Identify V2 and remove the bone between V2 and the vidian artery to obtain exposure of the petrous ICA. Open Meckel’s cave lateral to the vertical segment of the ICA.

11. **Lateral cavernous sinus.** Dissect superior to Meckel’s cave, lateral to the ICA. Identify the contents of the cavernous sinus.

12. **Infratemporal skull base.** Identify the medial and lateral pterygoid plates inferior to the base of the pterygoids. Follow the lateral pterygoid plate to foramen ovale till you can identify V3. Resect the medial portion of the Eustachian tube. Open the space between the pterygoid plates and dissect the medial and lateral pterygoid muscles. Follow the Eustachian tube along the skull base and identify where the ICA enters the skull base.

13. **Infrapetrous approach.** Transect V3 and drill the bone along the inferior aspect of the petrous bone to expose the petrous ICA.
COURSE VENUE

Workshop location:
Laboratory of Anatomy
University of Nice
CHU Pasteur
Language: English

WORKSHOP OBJECTIVE AND DESIGN

This hands-on workshop will allow the participants (Neurosurgeons, and ENT surgeons, fellows and residents) to learn a variety of endoscopic approaches to the vertebral artery and skull base utilizing state-of-the-art instrumentation under the guidance of a distinguished panel of surgeons. At the end of the course, the participants should have developed optimal understanding of the endoscopic approach of sellar/suprasellar space, clivus, petrous apex, cranio-cervical junction.

Tuition Fee: FULL SINGLE REGISTRATION: € 1500
ONLY FOR 16 PARTICIPANTS
Includes: - Leading edge auditorium facility - Reception of 27th June 2012
- Special Event Dinner of the 28th June 2012
- Course materials (instrumentation) -
  Lunch and coffee breaks
- High quality Cadaver Specimens (two participants per specimen) - Use of endoscope, dedicated instrumentation, Drill, microdebrider.

Tuition Fee (OBSERVER ONLY 8 PARTICIPANTS): € 500
Includes: - Leading edge auditorium facility - Reception of 27th June 2012
Lunch and coffee breaks
(Dinner of the 28th June 2012

Hotel Accommodations
For the convenience of our attendees, a block of rooms has been set-aside with discounted room rates within minutes from the workshop location.
(further information will be available on the website)

ORGANIZING SECRETARIAT
Dr. Giuseppe Garo
SIACH
Phone: (+39) 340 3785028
E.mail. secretariat@siach.eu

For information and inscriptions visit:
http://www.siac.eu