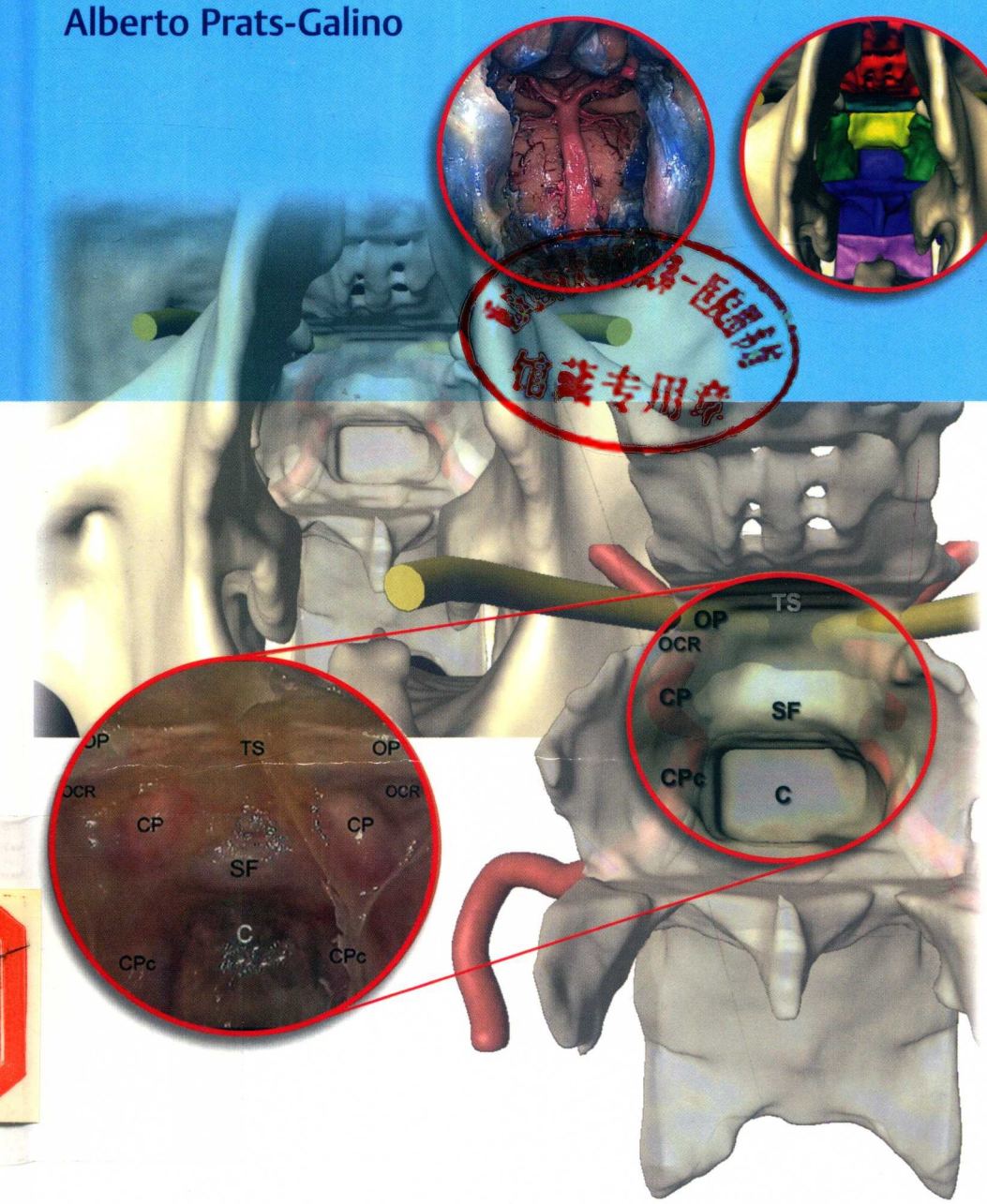
Endoscopic Approaches to the Paranasal Sinuses and Skull Base

A Step-by-Step Anatomic Dissection Guide

Manuel Bernal-Sprekelsen
Isam Alobid

Co-Editors
Joaquim Enseñat
Alberto Prats-Galino



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Editors
Manuel Bernal-Sprekelsen, MD, PhD
Full Professor and Director
Department of Otorhinolaryngology
Hospital Clinic
University of Barcelona
Barcelona, Spain

Isam Alobid, MD, PhD
Associate Professor
Head, Rhinology and Skull Base Unit
Department of Otolaryngology
Hospital Clinic
University of Barcelona
Barcelona, Spain

Co-editors
Joaquim Enseñat, MD, PhD
Chairman of Neurosurgery
Department of Neurosurgery
Hospital Clinic
Faculty of Medicine
University of Barcelona
Barcelona, Spain

Alberto Prats-Galino, MD, PhD
Full Professor
Laboratory of Surgical NeuroAnatomy (LSNA)
Human Anatomy and Embryology Unit
Faculty of Medicine
University of Barcelona
Barcelona, Spain

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Uttar Pradesh, India
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Preface

Working as a trainee at the Johannes-Gutenberg University Hospital in Mainz, Germany, I had the opportunity in the mid-1980s to learn firsthand how to perform an endoscopic sinus surgery under the supervision of Prof. Ralf Reck. While one surgeon looked through the endoscope, another checked through an angulated "spy" adapted to an image split, and vice versa. No cameras or monitors were available.

Little did I know back then that this would become my greatest "hobby" within ENT. In 1990, my former chief, late Prof. Henning Hildmann, allowed me to organize the first FESS course (in Spanish!) while I was at the Elisabeth-Hospital, at the Ruhr-University Bochum, Germany, as a consultant. Among others, late Johannes Lang, Wolfgang Draf, Karl Hörmann, Werner Hosemann, Carlos Suarez, and Humberto Massegur were invited.

Back in Spain, in 1992, together with a few rhinologists (Ademá and Massegur, pioneers for FESS here), the surgical techniques were progressively introduced not only in Spain, but (advantage of the language!) also in South America. We became members of a kind of a "FESS circus." Interestingly, FESS was not received immediately with a "warm welcome," by those favoring the microscope—not a problem, as long as the endonasal approach was chosen—but more by those not acknowledging the advantages of an endonasal approach. Nevertheless, all courses, with or without cadaver dissection, were always fully booked, and live surgery was performed around the country specifically to convince the "Sauluses."

After many courses (and some decades later), technology has allowed us to perform FESS with navigational systems and/or powered instrumentation, better cameras, HD and even 4K monitors, and wide-angled endoscopes. Also, the indications became considerably, if not radically, changed. Our initial slides from presentations dealing with "indications and contraindications" had to be updated almost on a yearly basis. Nowadays, almost nothing is impossible through the nose.

After moving to Barcelona, in February 1998, it took me some years to convince our neurosurgeons to build up a team to approach the full skull base and beyond. With the incorporation of Joaquim Enseñat, now the Head of the Department of Neurosurgery, and the hard work of my co-worker, Dr. Isam Alobid, the Skull Base Unit became a reality. Meanwhile, in Pittsburgh mainly the Kassam–Carrau team was pushing strongly, showing us the way. Now, nose and paranasal sinuses became the surgical corridors to the different approaches to the skull base. Certainly, the vast experience acquired along the previous decades on endoscopic sinus surgery set the basis that allowed to proceed further.

We now proudly look back to over a decade of expanded endoscopic skull base surgery. Numerous dissection courses behind us together with the best of our experts and friends, has been presented here.

We hope this book will become a true contribution and page-turner for all those interested in endoscopic surgery of the paranasal sinuses and skull base. In that sense, I would like to thank all authors and co-authors for their valuable contributions.

Manuel Bernal-Sprekelsen

Preface

Endoscopic sinus and skull base surgery have undergone many changes over the past two decades based on increasing knowledge of anatomy and technological advances in endoscopes, resolution of cameras and TV screens, and navigation systems. Extended approaches to skull base have allowed for the management of complex lesions in a minimally invasive fashion, resulting in improved outcomes, reduced morbidity, and decreased hospital stays. Advances in skull base reconstruction have also played a crucial role to the progression of this field.

This book covers the basic concepts of endoscopic surgery of the paranasal sinuses and skull base, endoscopic anatomy, preoperative and postoperative diagnosis, instrumentation, anesthesia, and patient positioning. The intention of this text is to present in a unique way basic landmarks of the anatomy of sinuses and skull base. This overview is also followed by clinical and practical case examples that bring more insights about management of pathologies and tumors involving this area.

We are very grateful to the leading experts from around the world who have shared their experience, skills, and tips and tricks in this book to help our patients and to improve their quality of life through our work.

The manual is divided into 37 chapters. Each one was built on the anatomical exposure and identification of anatomical landmarks developed in the preceding dissection. Our goal is to provide rhinologists, neurosurgeons, head and neck and maxillofacial surgeons, fellows, residents, and medical students who are interested in the topics covered here with a broad understanding of the potential minimum invasive approach to the skull base.

We hope this book really can serve as guide for young surgeon in daily practice and help to build a multidisciplinary team in their centers.

Isam Alobid

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We are very grateful to Stephan Konnry, Thieme Editorial in Stuttgart, for supporting this project from the very beginning. We would also like to sincerely thank Sapna Rastogi and co-workers in Noida, for their excellent job in gathering all chapters, figures, and drawings from the authors and reviewing them to find what was missing.

Contributors

Kumar Abhinav, MBBS, FRCS (Neurosurgery)
Skull Base Research Fellow
Department of Neurosurgery
University of Pittsburgh Medical Center
Pittsburgh, Pennsylvania, United States

Joan M. Ademá-Alcover, MD
Professor
Department of Otolaryngology–Head and Neck Surgery
Hospital General de Cataluña
Universitat Autònoma de Barcelona
Barcelona, Spain

Isam Alobid, MD, PhD
Associate Professor
Head, Rhinology and Skull Base Unit
Department of Otolaryngology
Hospital Clinic
University of Barcelona
Barcelona, Spain

Muhamad A. Amine, MD, MS
Otorhinolaryngologist
Department of Otolaryngology–Head and Neck Surgery
Carle Foundation Hospital
Urbana, Illinois, United States

Vijay K. Anand, MD
Clinical Professor of Otolaryngology
Department of Otolaryngology–Head and Neck Surgery
Weill Medical College of Cornell University
New York, New York, United States

Paolo Battaglia, MD
Assistant Professor
Division of Otorhinolaryngology
Department of Biotechnology and Life Sciences
Head and Neck Surgery & Forensic Dissection Research Center (HNS & FDRC)
University of Insubria
ASST Sette Laghi
Ospedale di Circolo e Fondazione Macchi
Varese, Italy

Angelique M. Berens, MD
Otolaryngologist
Department of Otolaryngology–Head and Neck Surgery
University of Washington School of Medicine
Seattle, Washington, United States

Manuel Bernal-Sprekelsen, MD, PhD
Full Professor and Director
Department of Otorhinolaryngology
Hospital Clinic
University of Barcelona
Barcelona, Spain

Raewyn G. Campbell, MD
Otolaryngologist
Department of Otolaryngology–Head and Neck Surgery
The Ohio State University Wexner Medical Center
Columbus, Ohio, United States

Gabriel Martinez Capoccioni, MD
Otorhinolaryngologist
Department of Otorhinolaryngology–Head and Neck Surgery
Complejo Hospitalario Universitario de Santiago
Santiago, Spain

Paolo Cappabianca, MD, PhD
Professor and Chairman of Neurosurgery
Head of Division of Neurosurgery
School of Medicine and Surgery
University of Naples Federico II
Naples, Italy

Eugenio Cárdenas, MD, PhD
Consultant Neurosurgeon
Department of Neurosurgery
Hospital Universitario Virgen del Rocío y Virgen Macarena
Sevilla, Spain

Ricardo L. Carrau, MD, FACS
Professor
Department of Otolaryngology–Head & Neck Surgery
Director of the Comprehensive Skull Base Surgery Program
The Ohio State University Medical Center
Columbus, Ohio, United States

Paolo Castelnuovo, MD, FRCSEd, FACS
Full Professor and Chairman
Division of Otorhinolaryngology
Department of Biotechnology and Life Sciences
Head and Neck Surgery & Forensic Dissection Research Center (HNS & FDRC)
University of Insubria
ASST Sette Laghi
Ospedale di Circolo e Fondazione Macchi
Varese, Italy

Giuseppe Catapano, MD
Neurosurgeon
Department of Neuroscience
Neurosurgery Operative Unit
"G Rummo" Hospital
Benevento, Italy

Luigi Maria Cavallo, MD, PhD
Assistant Professor of Neurosurgery
Division of Neurosurgery
School of Medicine and Surgery
Università degli Studi di Napoli Federico II
Naples, Italy

Juanita M. Celix, MD, MPH
Neurosurgeon
Department of Neurosurgery
Aurora Neurosciences Innovation Institute
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin, United States

Mauricio López Chacón, MD
Consultant Otorhinolaryngology
Rhinology and Skull Base Unit
Department of Otolaryngology
Hospital Clinic
University of Barcelona
Barcelona, Spain

Srikant S. Chakravarthi, MD, MSc
Neurosurgery Research Fellow
Aurora Neuroscience Innovation Institute
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin, United States

Peng-Yuan Chang, MD
Instructor
Department of Neurosurgery
Neurological Institute
Taipei Veterans General Hospital
School of Medicine
National Yang-Ming University
Taipei, Taiwan

Arturo Cordero Castillo, MD
Consultant Otorhinolaryngologist
Rhinology and Skull Base Unit
Department of Otolaryngology
Hospital Clinic
University of Barcelona
Barcelona, Spain

Martin Corsten, MD
Chair Department of Otolaryngology–Head and Neck Surgery
Aurora Neurosciences Innovation Institute
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin, United States

Iacopo Dallan, MD
Consultant Otorhinolaryngologist
Second Unit of Otorhinolaryngology
Azienda Ospedaliero-Universitaria Pisana
Pisa, Italy

Elena D'avella, MD
Neurosurgeon
Laboratory of Surgical NeuroAnatomy (LSNA)
Human Anatomy and Embryology Unit
Faculty of Medicine
University of Barcelona
Barcelona, Spain

Juan Pablo Demaría, MD
Otorhinolaryngologist
Instituto de Diagnóstico y Cirugía
Rosario, Argentina

Ricardo Dolci, MD
Otolaryngologist
Clinica Dolci de Otorrinolaringologia
São Paulo, Brazil

Tomasz Dziedzic, MD, PhD
Neurosurgeon
Department of Neurosurgery
Medical University of Warsaw
Warsaw, Poland

Joaquim Enseñat, MD, PhD
Chairman of Neurosurgery
Department of Neurosurgery
Hospital Clinic
Faculty of Medicine
University of Barcelona
Barcelona, Spain

Juan C. Fernandez-Miranda, MD
Associate Professor
Department of Neurosurgery
University of Pittsburgh Medical Center
Pittsburgh, Pennsylvania, United States

Giacomo Fiacchini, MD
Otolaryngologist
First Otolaryngology–Head & Neck Surgery Unit
University of Pisa
Pisa, Italy

Stefano Sellari-Franceschini, MD
Otolaryngologist
First ENT Unit
Azienda Ospedaliero-Universitaria Pisana
Pisa, Italy

Giorgio Frank, MD
Neurosurgeon
Department of Neurosurgery, IRCCS
Ospedale Bellaria
Bologna, Italy

Melanie Fukui, MD
Neuroradiologist
Radiology and Neurosurgery Department
Aurora Neurosciences Innovation Institute
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin, United States

Elena Garcia-Garrigós, MD
Consultant
Department of Radiology
Hospital Universitario de Alicante
Universidad Miguel Hernandez
Alicante, Spain

Christos Georgalas, MD, PhD, DLO, FRCS(ORL-HNS)
Director
Endoscopic Paranasal and Skull Base Surgery
Hygeia Hospital
Athens, Greece
Academic Associate
Leiden University Hospital
Leiden, Netherlands

Michael Ghirelli, MD
ENT Resident
ENT Department
Ospedale Bellaria
Bologna, Italy

Nelido Gonzalez Fernandez, MD
Maxillo-Facial Surgeon
Department of Maxillo-Facial Surgery
Instituto Nacional de Oncología y Radiobiología (INOR)
La Habana, Cuba

Leo F.S. Ditzel Filho, MD
Neurosurgeon
Department of Neurosurgical Surgery
The Ohio State University Wexner Medical Center
Columbus, Ohio, United States

Juan Ramón Gras-Cabrerizo, MD
Otorhinolaryngologist
Department of Otolaryngology–Head and Neck Surgery
Hospital de la Santa Creu i Sant Pau
Universitat Autònoma de Barcelona
Barcelona, Spain

Gustavo Hadad, MD
Otorhinolaryngologist
Instituto de Diagnóstico y Cirugía
Rosario, Argentina

Marija Mavar Haramija, MSc
Biomedical Imaging Scientist
Perspectum Diagnostics Ltd.
Oxford, England

Ali Jamshidi, MD
Clinical Instructor
Department of Otolaryngology–Head and Neck Surgery
The Ohio State University Wexner Medical Center
Columbus, Ohio, United States

Ariel Kaen, MD, PhD
Consultant Neurosurgeon
Department of Neurosurgery
Hospital Universitario Virgen del Rocío y Virgen Macarena
Sevilla, Spain

Apostolos Karligkiotis, MD
Otorhinolaryngologist
Division of Otorhinolaryngology
Department of Biotechnology and Life Sciences
University of Insubria
ASST Sette Laghi,
Ospedale di Circolo e Fondazione Macchi,
Varese, Italy

Pornthep Kasemsiri, MD
Assistant Professor
Department of Otorhinolaryngology
Faculty of Medicine
Khon Kaen University
Khon Kaen, Thailand

Amin Kassam, MD
Chair of Department of Neurosurgery V
Vice-President of Neurosciences System Clinical Program
Department of Neurosurgery
Aurora Neurosciences Innovation Institute
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin, United States

Edward Kerr, MD
Neurosurgeon
Department of Neurosurgical Surgery
The Ohio State University Wexner Medical Center
Columbus, Ohio, United States

Sammy Khalili, MD, MSc
Otolaryngologist
Department of Otolaryngology and Head and Neck Surgery
Aurora Neuroscience Innovation Institute
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin, United States

Almaz Kurbanov, MD
Research Fellow
Department of Neurosurgery
University of Cincinnati College of Medicine
Cincinnati, Ohio, United States

Lili Laleva, MD
Neurosurgeon
Department of Neurosurgery
Tokuda Hospital Sofia, Bulgaria.
Sofia, Bulgaria

Cristobal Langdon, MD
Professor
Rhinology and Skull Base Unit
Department of Otorhinolaryngology
Hospital Clinic, University of Barcelona
Barcelona, Spain

Eduardo Lehrer, MD
Otorhinolaryngologist
Department of Otolaryngology–Head and Neck Surgery
Hospital de l'Esperit Sant
Barcelona, Spain

Juan Antonio Juanes Méndez, MD, PhD
Full Professor
Department of Human Anatomy and Histology
University of Salamanca
Salamanca, Spain

Francesca Jaume Monroig, MD
Otorhinolaryngologist
Rhinology and Skull Base Unit
Department of Otorhinolaryngology
Hospital Clinic de Barcelona
Universitat de Barcelona
Barcelona, Spain

Diego Mazzatenta, MD
Professor of Neurosurgery
Department of Biomedical and Neuromotor Sciences
University of Bologna
Director of Center of Pituitary and Endoscopic
Skull Base Surgery
IRCCS Institute of Neurological Sciences of Bologna
Bologna, Italy

David K. Morrissey, MBBS (Hons)
Senior Lecturer
Department of Surgery
The University of Queensland
Brisbane, Australia

Kris S. Moe, MD, FACS
Professor and Chief
Division of Facial Plastic and Reconstructive Surgery
Departments of Otolaryngology and Neurological Surgery
University of Washington School of Medicine
Seattle, Washington, United States

Miguel Mural, MD
Neurosurgeron
Hospital Nacional Profesor Alejandro Posadas Buenos Aires, Argentina

Jun Muto, MD, PhD
Neurosurgeon
Department of Neurosurgery
Keio University School of Medicine
Tokyo, Japan

Matteo de Notaris, MD, PhD
Consultant Neurosurgeon
Department of Neuroscience
Neurosurgery Operative Unit
"G Rummo" Hospital
Benevento, Italy

Giuseppe Di Nuzzo, MD
Neurosurgeon
Department of Neuroscience
Neurosurgery Operative Unit
"G Rummo" Hospital
Benevento, Italy

Bradley A. Otto, MD
Assistant Professor
Department of Otolaryngology–Head and Neck Surgery
The Ohio State University Wexner Medical Center
Columbus, Ohio, United States

Daniel M. Prevedello, MD, FACS
Associate Professor
Department of Neurosurgical Surgery,
The Ohio State University Wexner Medical Center
Columbus, Ohio, United States

Ernesto Pasquini, MD
Adjunct Professor
University of Bologna
Head, ENT Metropolitan Unit
Surgical Department
"Bellaria" Hospital
Ausl Bologna, Italy

Hafiz Patwa, MD
Otolaryngologist
Department of Otolaryngology–Head & Neck Surgery
The Ohio State University Wexner Medical Center
Columbus, Ohio, United States

Alberto Prats-Galino, MD, PhD
Full Professor
Laboratory of Surgical NeuroAnatomy (LSNA)
Human Anatomy and Embryology Unit
Faculty of Medicine
University of Barcelona
Barcelona, Spain

Carlos M. Rivera-Serrano, MD
Plastic & Reconstructive Surgeon
Craniofacial and Reconstructive Microsurgery Fellow
Chang Gung Memorial Hospital
Taipei, Taiwan

Roldán Roberto, MD
Otorhinolaryngologist
Instituto de Diagnóstico y Cirugía
Rosario, Argentina

Theodore H. Schwartz, MD, FACS
David and Ursel Barnes Professor of Minimally Invasive Neurosurgery
Director, Anterior Skull Base and Pituitary Surgery
Director, Epilepsy Research Laboratory
Departments of Neurological Surgery, Otolaryngology and Neuroscience
Weill College of Medicine of Cornell University
New York, New York, United States

Richard Rovin, MD
Neurosurgeon and Director of Clinical Research
Department of Neurosurgery
Aurora Neurosciences Innovation Institute
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin, United States

Vincenzo Seneca, MD
Neurosurgeon
Department of Neuroscience
Neurosurgery Operative Unit
"G Rummo" Hospital
Benevento, Italy

Nishit Shah, MD
Otolaryngologist
Department of Otolaryngology
Bombay Hospital and Medical Research Centre
Breach Candy Hospital
Mumbai, India

Domenico Solari, MD
Research Fellow in Neurosurgery
Division of Neurosurgery
School of Medicine and Surgery
Università degli Studi di Napoli Federico II
Naples, Italy

Humbert Massegur-Solench, MD
Consultant
Department of Otolaryngology–Head and Neck Surgery
Hospital de la Santa Creu i Sant Pau
Universitat Autònoma de Barcelona
Barcelona, Spain

Alberto Di Somma, MD
Resident in Neurosurgery
Division of Neurosurgery
School of Medicine and Surgery
Università degli Studi di Napoli Federico II
Naples, Italy

Teresa Somma, MD
Research Fellow in Neurosurgery
Division of Neurosurgery
University of Naples Federico II
Naples, Italy

Michael Tsounis, MD, PhD
Consultant Otorhinolaryngologist
Department of Otorhinolaryngology
Health Directorate of Hellenic Police Headquarters
Athens, Greece

Tsung-Hsi Tu, MD
Instructor
Department of Neurosurgery
Neurological Institute
Taipei Veterans General Hospital
School of Medicine
National Yang-Ming University
Taipei, Taiwan

Mario Turri-Zanoni, MD
Consultant Otorhinolaryngologist
Division of Otorhinolaryngology
Department of Biotechnology and Life Sciences
Head and Neck Surgery & Forensic Dissection Research Center (HNS & FDRC)
University of Insubria
ASST Sette Laghi
Ospedale di Circolo e Fondazione Macchi
Varese, Italy

Peter John Wormald, MD
Professor and Chairman
Otolaryngology Head and Neck Surgery
Professor of Skull Base Surgery
University of Adelaide
Adelaide, Australia

Jau-Ching Wu, MD, PhD
Associate Professor
Department of Neurosurgery
Neurological Institute
Taipei Veterans General Hospital
School of Medicine
National Yang-Ming University
Taipei, Taiwan

Yu-Shu Yen, MD
Assistant Professor
Department of Neurosurgery
Neurological Institute
Taipei Veterans General Hospital
School of Medicine
National Yang-Ming University
Taipei, Taiwan

Lee A. Zimmer, MD, PhD
Professor
Department of Otolaryngology–Head and Neck Surgery
University of Cincinnati College of Medicine
Cincinnati, Ohio, United States

Matteo Zoli, MD
Neurosurgeon
Department of Neurosurgery, IRCCS
Ospedale Bellaria
Bologna, Italy

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