2013 Pietro Paoletti Conference: Endoscopic Transsphenoidal Surgery—An Educational Perspective

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I considered this commitment, assigned to me for 2013, a prestigious form of recognition, and I have tried to give this distinguished auditorium the sense of the work that has been evolving throughout my years of neurosurgery. Since the late 1970s, surgery via a transsphenoidal approach had been used in our medical school to treat pituitary adenomas. As a result of transsphenoidal surgery, we have been able ascend to a new level, which has been our center of gravity and our model for renovation and improvement. We created a team committed to meticulous hard work, with each member in his or her own field and with his or her own techniques striving to turn projects into reality. This is a team of people who refuse to remain where they are, with respect for and always in favor of better outcomes for patients. This attitude has permitted the development of an efficient system of care and has made Naples a center of excellence for pituitary and skull base surgery.

We all are equal but different,

and everyone has his own story

It was a great joy for me to speak on November 29, 2013, in Pavia, in the room dedicated to a great anatomist, Antonio Scarpa, who began the academic tradition of the anatomic school of Pavia. Scarpa gave an historic talk on October 31, 1785, the day this room was inaugurated. I thank the organizers, specifically Lorenzo Magrassi, Chief of the Division of Neurosurgery of the University of Pavia, and Rodolfo Paoletti, President of the Giovanni Lorenzini Medical Science Foundation, for inviting me to honor the memory of an exceptional man, Pietro Paoletti (1934—1991)—excellent surgeon, dedicated researcher, and critical thinker.

Paoletti was Professor and Chairman of Neurosurgery at the University of Pavia and made important contributions during his life both in neurosurgery and in pharmacologic research related to central nervous system tumors. Since 1992, the Giovanni Lorenzini Medical Science Foundation has organized a yearly conference in memory of Paoletti. The first invited speaker was Anders Bjorklund, histologist at the University of Lund. Subsequent honored speakers included Cesare Fieschi, outstanding Italian neurologist; Mitchel Berger, neurosurgeon at the University of California in San Francisco and past president of the American Association of Neurological Surgeons (AANS); Graham Teasdale, famous for the Glasgow Coma Scale; Nicolas de Tribolet, present editor-in-chief of *Acta Neurochirurgica*; Davide Schiffer, leading Italian neuropathologist; Albert Rhoton, the father of modern microsurgical neuroanatomy; Giovanni Broggi, past president of the Italian Society of Neurosurgery, and Giacomo Rizzolatti, known for the concept of mirror neurons. These individuals are just some of the renowned speakers who have shared the privilege to give this lecture.

I considered this commitment, assigned to me for 2013, a prestigious form of recognition, and I have tried to give this distinguished auditorium the sense of the work that has been evolving throughout my years of neurosurgery. Apart from a few months spent in New York and in London while I was medical student, I had only 2 extramural experiences at the beginning of my career: the first one in Sweden, at the Department of Neurosurgery of the Karolinska Sjukhuset in Stockholm with Olof Backlund, and the second in Austria, at the Institute of Anatomy of the University of Vienna with Manfred Tschabitscher. Otherwise, all my training occurred in Naples, the city where I was born, where an historic past and a wonderful sense of nature are intensely combined with a "tricky" daily way of life.

Since the late 1970s, surgery via a transsphenoidal approach had been used in our medical school for the treatment of pituitary adenomas. However, the Sixth European Workshop on Pituitary

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- Transsphenoidal surgery

Abbreviations and Acronyms
AANS: American Association of Neurological Surgeons


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Adenomas in Berlin in 1996 gave me the insight that would ultimately guide my entire career. A videotape presented by Hae Dong Jho, a Korean physician working in the United States, showing the endoscopic endonasal procedure for the removal of pituitary adenomas triggered the spark of future developments in this area. I began to work diligently with this perspective in anatomic laboratory training and with superb tutelage in rhinology by Paolo Castelnuovo, a new friend and generous teacher. At the beginning of 1997, we started using the purely endoscopic technique in Naples, with this novel methodology for sellar region surgery accessed via an endonasal pathway (3).

As a result of transsphenoidal surgery, we have been able ascend to a new level, which has been our center of gravity and our model for renovation and improvement. Transsphenoidal surgery has traditionally gone through different historical phases and several different approaches—sublabial, transnasal, microscopic, and finally endoscopic (12). We entered this workflow, adopting new instruments, the endoscope first and designing some additional specialized instruments (4), and employing different materials (6), but above all we adopted a team strategy, creating a neuroendocrine unit with Annamaria Colao, with whom we have shared respect, friendship, and relevant studies on both functioning (8-10) and nonfunctioning (5) pituitary adenomas. Furthermore, the pituitary gland, which is of extraordinary importance as the orchestra conductor of the endocrine system and the entire body, is a common platform for educational advancement driven by participants from different disciplines, including endocrinologists, radiologists, ophthalmologists, anesthesiologists, neurosurgeons, otorhinolaryngologists, pathologists, and radiation oncologist.

We created a team committed to meticulous hard work, with each member in his or her own field and with his or her own techniques striving to turn projects into reality. This is a team of people who refuse to remain where they are, seeking to push the limits, with respect for and always in favor of better outcomes for patients. As for gliomas, where significant advancement has not yet been reached, for adenomas and other neoplasms of the skull base, the relief of symptoms occurs in parallel with continuous advancement in research and understanding of biology. Creating and maintaining the harmony of the group has not always been easy (7), but the aim of improving and simplifying even the most complex procedures through a spirit of service, reliability, and discipline has permitted the development of an efficient system of care and has made Naples a center of excellence for pituitary and skull base surgery (15).

Whether or not we leave our footprint, the motto reinterpreted by Steve Jobs, "Stay hungry, stay foolish," perfectly fits our emotions (1). I did not discover or invent anything, but on the old continent and in my very traditional country, I expressed a different concept of leadership, focusing on a team made up of givers, individuals who prefer to contribute more than they receive, rather than takers, individuals who put their interest first, to provide a better life for people at work and for people suffering—a better life for you, a better life for me. This evolution has the characteristics of a Socratic Academy, receptive to the influence of many cultures, open to foreigners as well as compatriots, where everyone has the chance to develop his or her own inclinations, resulting in a joint methodologic flow. Again adopting the Socratic method, we shared with close and distant friends and colleagues the extraordinary experience of teaching from learning (i.e., lifelong learning).

Figure 1. Synchrony and harmony of 4 oars.

I consider myself lucky for the individuals I have met in life, especially for 3 magnificent teachers of various subjects: in high school, the teacher of philosophy, Vera Lombardi, who provided great inspiration for systematic thought; at University, Gaetano Salvatore, pathologist, scientist, and inventive and enthusiastic designer with great foresight; and, last but not least, in the middle of my career, Ed Laws, American neurosurgeon of Italian extraction, who transported me back to a stage of life where you look at the future as a whole, as a great dream that can be realized, changing the world day by day, leaving no stones unturned. Ed taught me neurosurgery (13, 14) and interactions with other disciplines; he turned my attention to modern society and to the patient's point of view. From him I learned how to get up again after a fall, how to develop constant receptiveness to new initiatives with sheer curiosity and not for self-interest, without distraction from our own pleasures and passions, but rather sharing and enjoying these in everyday life.

I was privileged for the atmosphere of my family, of ancient and sturdy origins. My parents loved each other; my mother spread a tender austere serenity, while my father imposed moral firmness. I have also been lucky in my own family, rich of a lovely wife, 3 healthy children, and some dogs as true family members. I have been lucky for the lessons of sport, especially rowing, which after years of sacrifices and fatigue, strengthens the body and the mind with steadiness, the harmony with fellow adventurers, and the education of never giving up (**Figure 1**) (2).

I have been lucky, once again, to encounter in my homeland true neurosurgical talents such as Francesco Castellano, student of the Swedish neurosurgeon Herbert Olivecrona, who was the first to remove a brain tumor in Naples in the 1950s. He represented for me an example of impetuous enthusiasm and extraordinary refinement; as did Faust D'Andrea, who introduced the neurosurgery of southern Italy into the National Academy; as did Paolo Conforti, who, thanks to his foresight, elevated the name of Naples into the neurosurgical world and left his precious legacy to his disciple, Francesco Tomasello. I cannot forget to mention, and I have not forgotten, the prosperous season that I experienced with Enrico de Divitiis, who for decades was my daily reference and introduced me to transsphenoidal surgery. He allowed me to travel around the world looking for new winds, while he, at home, was securing improvements and looking after the daily needs that, left unchecked, do not allow a project to become reality. At our university, in Naples, former capital of the Kingdom of the Two Sicilies, city of a rich past but of an uncertain future, we were able to install in 2005 the first fully integrated operating room in a public