Adam Politzer-Father of Modern Otology

JV Pai-Dhungat¹, Geeta Gore²

**Adam Politzer (1835-1920)** was born in Alberti near the city of Budapest in Hungary. He studied medicine at the University of Vienna and obtained his Doctorate degree in 1859. Some of his teachers belonged to the famous second “Vienna School” such as Joseph Skoda, Karl Rokitansky, Von Hebra, Josef Hyrtil, Johann Von Oppolzer and famous physiologist Carl Ludwig - who took special interest in him and was influential in his subsequent career.

Politzer showed unusual interest in diseases of the ear and started to work in Carl Ludwig’s laboratory. His interest at that time was mainly the physics of the auditory system. He studied the innervations of the intrinsic muscles of the ear. There he was the first to demonstrate that the innervations of the tensor tympani muscle was by trigeminal nerve and that of the stapedial muscle was by facial nerve. He studied the air movement in the Eustachian tube and variation of air pressure in the tympanic cavity by connecting two manometers - one placed in the external auditory canal meatus, and another in the pharynx. He showed valve near the opening into the middle ear which controls the process. It is usually closed to keep the bacteria and other things away from the mouth and nose.

The study became the basis for his pneumatic device - Politzer bag for inflating the middle ear (Politzerisation) which obviated the need for catheterization of Eustachian tube. He described this method for diagnostic and therapeutic purpose in 1861. The technique was widely adopted throughout the word and brought him fame.

The following year, he travelled extensively to other countries and centers, seeking to increase the depth of his practical training. He studied anatomy and pathophysiology of the ear with Anton Von Troeltsch and physiologist Heinrich Muller in Wurzburg, Helmholtz in Heidelberg, under Prosper Meniere, Claude Bernard the father of physiology in Paris, and Joseph Toynbee in London. Under tutelage of Rudolf Kolliker he learned microscopy.

He returned to Vienna in 1861 and, so impressed the authorities that a new chair of Otology was created for him. He established ear clinic, at Alemaines Krankenhaus, along with Josef Guber in 1864. Politzer was allowed by the Government to treat indigent patients. Having access to nearly limitless clinical and post-mortem material, in one of largest institute in central Europe, Politzer made fundamental contributions to almost all aspects of otology-investigations, patient care, writing and teaching. He was a model teacher with profound knowledge. He was kind to students and patients alike, and bore the hallmark of an outstanding clinician.

An additional advantage in attracting students and patients from many countries was his fluency in many languages. Many Englishmen and Americans attended his clinics as his teachings were given in excellent English. Politzer was a neat little man with sparkling dark eyes and a musical voice. His general manner and courteous attitude won him the esteem of all who visited him.

He revolutionized the clinical diagnosis of ear diseases by illuminated inspection of tympanic

---

¹Professor of Medicine, TN Medical College (Retd.), Hon. Physician Bhatia Hospital; ²Professor & Head Department of Audiology & Speech Therapy (Retd.), TN Medical College, Mumbai, Maharashtra
membrane (which lead to current otoscope), devised an Acoumeter for measuring hearing acuity and at least two early acoustical hearing aids. He also developed several surgical instruments which bear his name.

In 1865, Politzer’s *Atlas of tympanic membrane* in health and disease appeared with colored illustrations, from his own sketches. The most outstanding and authoritative *Textbook of Diseases of Ear*, appeared in 1878, and is judged to be his most important work. His numerous monographs and articles were a mine of information. Politzer also founded the first Journal dedicated to diseases of ear.

A talented artist, he had a vast collection of drawings and models, with anatomic and pathological specimens. Politzer was also a connoisseur of etchings and paintings and a notable collector. His remarkable collection of 19th century pathologic and histological preparation and illustrations were donated and divided among the Algemeines Krankenhaus, the University of Budapest and college of Physicians of Philadelphia (Mutter Museum).

As he approached professional retirement, he was drawn to historical matters, and published two volumes of his *History of Otolaryngology*.

It is in his honor that the International Society of Otology bears his name. He influenced and trained thousands of otologists from all over the world and his most famous successor, Robert Barany received Nobel Prize in 1914. However Politzer died in poverty in 1920, due to personal financial problems and the devaluation of Austrian currency after WWI.

**Reference**