A short biography of the life of the dedicated anatomist - Valsalva

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Antonio Maria Valsalva was born on June 17, 1666 in Imola, Italy in a distinguished and well-to-do family. He was the third of eight children born to goldsmith Pompeo Pini, who adopted the name Valsalva from the location of the family home. He was educated in his early years by the Jesuits in the humanities, mathematics, and natural sciences. Their teaching aroused his interest in animal morphology and entomology.

He subsequently moved to Bologna, where he studied philosophy under Lelio Trionfetti, mathematics under Pietro Mengoli and geometry under Rodelli who were some of the famous teachers of that time at Bologna University. Noted anatomist, Malpighi was Valsalva’s teacher at Bologna University and they shared a deep admiration for each other.

On June 10, 1687, Valsalva became a doctor of medicine and philosophy, defending the dissertation “Sulla superiorità delle dottrine sperimentali”. Immediately afterwards, Valsalva was appointed Inspector of Public Health in Bologna. About 12 years later, when there was an epidemic among cattle, the Senate of Bologna set him in charge of containing it.

With his name now on the roll of Bolognese doctors, he attended scientific meetings at Eustachio Manfredi’s house that led to the founding of the “Accademia degli Iniquiti”.

Valsalva devoted much of his life to teaching and scientific research, as well as to the practice of medicine. He spent a lot of time in the anatomical amphitheatre, the unhealthy air of which affected his health. He was seized by such fervour for research and analysis, that he even made an organoleptic evaluation of exudates. Valsalva observed that the serum produced by gangrene was so acrid that, after tasting it, its extreme sourness irritated the papillae of his tongue for an entire day.

Because of his achievements, in 1694, he was appointed as Professor of anatomy, Bologna University. Valsalva’s scientific integrity was noteworthy. When he was elected, with Vittorio Francesco Stancari and Gian Antonio Stancari var lege by the Bologna Academy to censor the first volume of Morgagni’s “Adversaria anatomica”, he asked for more time in order to be able to give a considered and precise opinion. When an objection was raised that this would delay publication of the landmark book, Valsalva replied, “That’s how I am . . . I love Morgagni, but I love the truth more.”

His most famous work, “De aure humana tractatus” appeared in 1704, in Bologna, with subsequent editions in Dutch and Italian university cities. This remarkable book, which became a standard on the subject for over a century, contains his anatomical, physiological, and pathological observations of the ear. In it he described and depicted the eardrum, even the smallest muscles and nerves of the ear, subdividing the ear into its internal, middle, and external parts. He even showed an original method of inflating the middle ear (the Valsalva manoeuvre), which is widely practiced till today. The book was dedicated to the Senate. The Senate in return provided him with all the help, cooperation and funds for his research.

Valsalva was an extremely skilled anatomist and pathologist, a fine physician, and an excellent surgeon for over a quarter of a century in the Bolognese hospitals. As a surgeon, he understood the importance of nephrectomy, and did work in ophthalmology, rhinology, vascular and tumour surgery. He is particularly remembered for his handling of aneurysms. He also invented surgical instruments that were in much use during and after his time. During the course of his research, Valsalva noted that motor paralysis occurs on the side opposite to the cerebral lesion both in stroke and in cases of cranial injury.

Valsalva has a place in the history of psychiatry for having been among the first to call for, and in part to implement, the humanitarian treatment of the insane, preceding Vincenzo Chiarugi and Philippe Pinel. He considered madness to be analogous to organic disease.

Valsalva indirectly made important contributions to Morgagni’s great work “De sedibus et causis morborum”, which contains a large number of contributions of Valsalva. On April 22, 1709, at the age of 43, Valsalva married Elena Lisi, the seventeen-year old daughter of a noble Bolognese senatorial family. Together, they had six children, three of whom
died young. In 1721, during a consultation with Morgagni in Venice, he suffered a temporary dyslalia, a symptom of the fatal apoplexy that struck him two years later. He remained in Bologna, Italy until his death on February 2, 1723.\textsuperscript{1,5}

\textbf{Associated Eponyms}

\textit{Aneurysm of sinus of Valsalva}
A thin-walled tubular outpouching usually in the right or non-coronary sinus.

\textit{Valsalva’s dysphagia}

\textit{Valsalva’s ligaments}
Ligaments that attach the auricle to the side of the head.

\textit{Valsalva’s methods}
1. A method to test the patency of the Eustachian tube.
2. A technique to forcibly exhale against a closed glottis causing increased intrathoracic pressure and slowing of the pulse.

\textit{Valsalva’s muscle}
A band of vertical muscular fibres on the outer surface of the tragus of the ear, innervated by the temporal branch of the facial nerve.

\textit{Valsalva’s sinuses}
Three dilatations in wall of the aorta behind the flaps of the three aortic semilunar valves.

\textbf{References}