

WHO REMEMBERS THE FIRST PROFESSOR OF OPHTHALMOLOGY?

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Abstract

The cradle of modern ophthalmology was the Joseph's Academy which still stands in Vienna's ninth district. History records some famous names from the academic lineage which flourished there in the nineteenth century, but few people have heard of Joseph Barth, who became the first professor of ophthalmology in 1773. A biography of Joseph Barth is presented.

Key words: Joseph Barth, Joseph Beer, Joseph's Academy, Order of St John.

As Australia prepares to celebrate 200 years of European civilisation it is fitting that we should reflect on our professional origins. In 1773 Joseph Barth was awarded the title of imperial oculist and later a special chair was created for him in anatomy, physiology and ophthalmology. Although the academic lineage which flourished in Vienna thereafter is well known, Barth himself has been maligned by neglect. Daviel is sometimes credited with a chair in ophthalmology¹ preceding Barth's, but his position as imperial oculist to Louis XV and ophthalmic teacher, does not qualify him for this precedence.²

Barth was born at Valletta in Malta the son of Nicholas and Maddelena, nee Scerberas, in 1745.³ Unfortunately nothing is known of his early childhood or friends, but it is known that he entertained an early ambition to become a surgeon. To understand Barth's background it is necessary to know something of eighteenth century Valletta, a city at that time dominated by the Holy Infirmary.

The order of the hospital of St John of Jerusalem had been given sovereign rights to Malta by the Emperor Charles V in 1530, and subsequently became the Sovereign Military Order of Malta.⁴ They boasted a tradition as Hospitallers since 1113, and their origins predated the first crusade in Jerusalem.

In Valletta they built a hospital with a 'T'-shaped ward over 150 metres long — the longest room in Europe. Here they acquired a pre-eminent position in European medicine³ during the seventeenth and eighteenth centuries, acquiring a reputation for the treatment of cataract and ureteric calculi in particular.

Barth was accepted as a student in anatomy by the surgeon Michael Angelo Grimma at the Holy Infirmary. He then moved to Rome where he continued his studies. At this time his father met an Austrian of influence named Commander Smitner, and prevailed upon him to assist his son with his career.⁵ Smitner visited Rome and convinced Barth to continue his studies in

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Vienna, where the two men enjoyed a long friendship. At this time Barth became interested in the anatomy of the eye and the causes of blindness. He pursued this interest after his graduation in Vienna, and attempted to learn more of the cataract extraction which had been popularised by Daviel since 1752.

One of the empress Maria Theresa's 16 children — the future emperor Joseph II — developed an eye complaint and was attended by Barth who had become known at court. It may have been a tuberculous uveitis (Wyzlicki, personal communication), but the details of this complaint and its subsequent cure by Barth are not recorded. After this success Barth was made Imperial Oculist to the Empress in 1773, and she created an extraordinary chair in gross anatomy for him, with the responsibility of teaching ophthalmology.

At this time the subject of physiology had become pre-eminent over traditional anatomy,⁶ and was allied with microscopic or higher anatomy. Previously gross anatomy had "embodied" all the basic science necessary for aspiring surgeons.

In 1774 the professor of physiology retired and the professor of anatomy, Matthaeus Collins, was awarded the chair in physiology. Barth then received the anatomy chair previously held by Collins which was changed formally to a chair in anatomy and ophthalmology. Barth was also able to teach physiology with such success that in 1786 a new chair of "Higher Anatomy and Physiology" was created for him.⁵ Despite his pre-eminence in the local community, Barth was apparently unable to perform a cataract operation in 1773, preferring instead to couch the lens. In 1775 the Empress Maria Theresa invited the French oculist Wenzel to teach his technique of cataract extraction in Vienna, but the Viennese surgeons met with such disastrous results that Wenzel was again called in 1778, at which time he taught Barth his technique, which was similar to that described by Daviel in 1752.⁷ The surgeon operated unassisted without antisepsis or anaesthesia. The patient was usually standing with his head supported by a fixture such as a window frame, in a semi-darkened room. The

surgeons thumb and finger were used to hold the lids against the orbital rims, and a sharp tapered blade inserted at the temporal limbus. Scissors were used to extend the section to over 180° and the capsule opened with a sharp needle. The lens was expressed by pressure and the patient rested in a dark room after the operation. The entire procedure took less than five minutes.

Barth used a ward in the Jesuit Spanish hospital until 1785 when the Joseph's Academy was established, and thereafter operated on poor patients from the provinces during the months of May and June until his retirement from teaching in 1791, the year after Joseph II died. In 1786 he published *Anfangsgrunde der Muskellehre* (foundations of our knowledge of the muscles). After his retirement he continued to study ophthalmology and physiology, as well as ancient history. His continued academic pursuits resulted in the publication of *Etwas über die Ausziehung des grauen Staares* (something about the extraction of cataract), but he was known to have a low opinion of the German medical literature of his day.

He lived to see Napoleon take Malta in 1798, and carry off the treasures from the Holy Infirmary and Cathedral in Valletta. These treasures went down at the Battle of the Nile when Nelson sunk Napoleons flag ship L'Orient. He also saw the "Egyptian Ophthalmia" in soldiers returning from Napoleon's Egyptian campaign.

When Barth retired his teaching position was taken by Proschaka, but not his chair. Barth trained Ehrenritter (who died shortly afterwards) and Johan Adam Schmidt in ophthalmology, but refused to train Joseph Beer because of a personal disagreement. Beer had drawn Barth's medical illustrations for 7 years, and graduated in medicine in 1785.

Schmidt became professor of pathology and tutor in anatomy and ophthalmology, but there was no immediate successor to Barth's chair, and the disagreement between the followers of Schmidt and Beer kept the latter from an extraordinary chair in ophthalmology until 1812. In 1818 this was raised to a chair in ordinary, and on 7 April the same year Barth died in Vienna, where he is buried.

Unlike Daviel and Von Graefe, Barth is not honoured by any monument but is often reviled for ill-treating Beer, who himself delivered a eulogy on Barth's death.⁵ The Joseph's Academy still stands as the home of the institute for medical history in Vienna, and the academic lineage which followed should have assured Barth a place in history. Beer's chair was held in succession by Rosas, Von Arlt, Jaeger, and Fuchs.⁶

The tradition which inspired Barth at Valletta now continues at the Ophthalmic hospital of St John in Jerusalem, and it is gratifying to note that since 1969 Australian ophthalmologists have been participating in the heritage which saw

modern ophthalmology launched four years before the First Fleet arrived in Australia.

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