

Dr. Thomas Wharton's Eponyms: Wharton's Duct and Wharton's Jelly

*Dr. THOMAS WHARTON'UN EPONİMLERİ:
WHARTON KANALI VE WHARTON JELİ*

Çağatay ÜSTÜN*

* MD, PhD, Ege University, Faculty of Medicine, History of Medicine & Ethics Department, İZMİR, TURKEY

Summary

Thomas Wharton, English physician and anatomist, 1614-1673. In 1656 he published a work (Adenographia) describing many glands of the body, including the submandibular gland for the conveyance of saliva. It was the first systematic account of the glands of the human body. Wharton himself discovered the duct which carried saliva from the submaxillary gland to the mouth, and studied the umbilical cord. He was the first to name the thyroid and jugular glands. Thomas Wharton's Adenographia: first published at London in 1656: translated from the Latin by Stephen Freer with an historical introduction by Andrew Cunningham. In our article, We'll give Dr. Wharton's short biography and his eponyms including Wharton's duct and Wharton's jelly.

Key Words: Thomas Wharton, His Eponyms

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Özet

Thomas Wharton. İngiliz hekimi ve anatomist (1614-1673). 1656'da insan vücudundaki salgı bezlerinin tarifini yaptığı Adenographia isimli eserini yayımladı. Bu eserde submandibular salgı bezinin tanımlanması da vardı. Bu anlamdaki ilk sistematik çalışma Wharton'a aittir. Submaksiller salgı bezinden tükürüğün ağız boşluğuna verilmesini sağlayan kanalı keşfeden ve umblikal kord üzerinde çalışmalar yapan kişidir. Tiroid ve boyun bezlerinin ilk kez isimlendirilmesini yapmıştır. Wharton'un Adenographia isimli eseri Londra'da 1656 yılında basıldı ve daha sonra Stephen Freer tarafından Andrew Cunningham'ın tarihsel girişi de eklenerek çevirisi yapıldı. Makalemizde Dr. Dthomas Wharton'un kısa biyografisini verecek ve onun eponimleri olan Wharton kanalı ve Wharton Jelinden bahsedeceğiz.

Anahtar Kelimeler: Thomas Wharton, Onun Eponimleri

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Short Biography of Dr. Thomas Wharton

[English Anatomist-Born August 31, 1614, Winston-on-Tees, Durham county; Died November 15, 1673, London]

Thomas Wharton was the son of John and Elizabeth Hodson. He studied at Pembroke College, Cambridge, Trinity College, Oxford, and at Bolton, Lancashire. A supporter of the republican cause, Wharton obtained his M.D. at Oxford on May 7, 1647, after the city had surrendered to Cromwell's army. Thereafter he had a medical practice in London (St. Thomas's Hospital) during the Great Plague of 1665 and he worked with John Bathurst, Oliver Cromwell's physician and was elected a fellow of the Royal College of physicians on December 23, 1650. Wharton served as one of

its censors six times between 1658 and 1673 and gave the Goulstonian lectures in January 1654.

In 1656 he published, at his own expense, his Latin treatise Adenographia, "a description of the glands of the entire body," which he dedicated to the College of Physicians. In Adenographia Wharton gave the first thorough account of the glands of the human body, distinguishing them from viscera and classifying them as either excretory, reductive, or nutrient. He provided a valuable description of the adrenal glands and the first adequate account of the thyroid gland, to which he gave its present name. He discovered and described the duct of the sumaxillary salivary gland (Wharton's duct), and accurately explained the role of saliva in mastication and digestion. In his discussion of the reproductive glands, Wharton corroborated



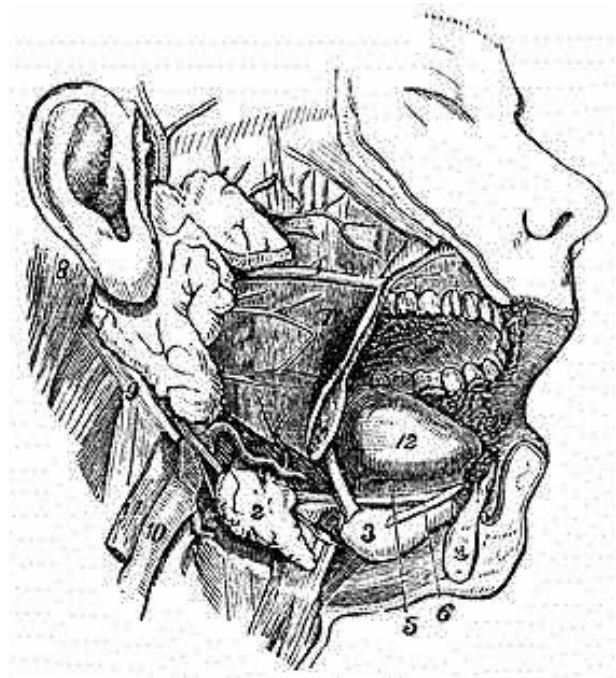
Picture 1. Dr. Thomas Wharton

Harvey's account of the placenta and furnished the original description of the mucoid jelly of the umbilical cord (Wharton's jelly). He differentiated the viscera from the glands and explained their relationship, describing the spleen and pancreas.

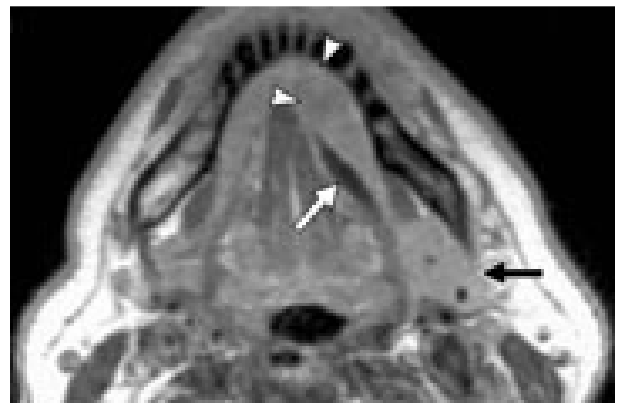
He also provided the first adequate account of the thyroid and gave it that name. He explained the role of saliva in mastication and digestion but considered that the function of certain glands, such as the adrenals and the thyroid, was to restore to the veins certain humors that were not useful to the nerves, and that one function of the thyroid was "to fill the neck and make it shapely".

Thomas Wharton in giving a comparative account of the glands took an important step by denying the old and persistent idea that the brain was a gland which secreted mucus. (However, he continued to believe that tears originated in the brain)

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Picture 2. Wharton's duct (No:5)



Picture 3. Small tumoral lesion in the anterior floor of the mouth (arrowheads) causes obstruction and dilatation of Wharton's duct (White arrow)

was a gland which secreted mucus. (However, he continued to believe that tears originated in the brain)

Much of Wharton's research was performed on animals: he mentions dissection of calves, and Izaak Walton published his description of an anglerfish (*Lophius*). Wharton's son Thomas II became a clergyman, but both his grandson George and great-grandson Thomas III, became prominent

London physicians. Dr. Wharton died in 1673.(1-8).

Dr. Thomas Wharton's Eponyms

Thomas Wharton discovered the duct of the submaxillary salivary gland and the jelly of the umbilical cord, both of which are named for him.

Wharton's duct (Ductus submandibularis)

The paired submandibular glands are located inferior to the base of the tongue in the posterior-lateral part of the floor of the mouth. Wharton's Duct is approximately 5 cm in length and runs anteriorly to open into the floor of the mouth on the summit of the sublingual papilla lateral to the frenulum of the tongue. The submandibular glands are mixed seromucous in type. The secretomotor innervation of the submandibular glands is from the facial nerve (VII) via the pterygopalatine ganglion.

Wharton's Jelly

A gelatinous intercellular substance which is the primitive mucoid connective tissue of the umbilical cord. It is rich in hyaluronic acid. It is the soft, jellylike, homogeneous intercellular substance of the umbilical cord; it gives the reaction for mu-

mucin and contains thin collagenous fibers which increase in number with the age of the fetus (9-12).

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Yazışma Adresi: Çağatay ÜSTÜN
Ege Üniversitesi Tıp Fakültesi
Tıp Tarihi AD
35100, Bornova, İZMİR
custun@med.ege.edu.tr