## NICOLAAS TULP 1593-1674

Tulp was born on 11 October 1593 into a prosperous, Protestant Amsterdam merchant family. He received his medical education at Leiden University where he matriculated in 1611 and obtained his degree in 1614, defending 24 propositions *De Cholera Humida*. Among his teachers were Reinier Bontius, Aelius Vorstius, and Pieter Paaw.

After completing his studies, Tulp left for Amsterdam where he practiced surgery and general medicine. Because he was a very engaged and respected physician, his practice soon became enormous and time-consuming. Apart form his medical interests Tulp was intimately involved in the projects and affairs of the city of Amsterdam. In 1622 he was elected alderman and one of the 36 councillors of the city, a position to which he was elected four more times in later years. Four times he served as one of the four burgomasters, twice he was a trustee of the orphanage, seven times treasurer of the city, and one time curator of the grammar school and Athenaeum (all one-year terms). From 1663 to 1665 and from 1673 to 1674 he served as a member of the Committee of Councillors of the States of Holland and West-Friesland representing Amsterdam.

In 1628 Tulp was appointed 'praelector anatomiae' of the Surgeons Guild, a position he held until 1652. His duties were to lecture on anatomy and surgery to the apprentice-surgeons and to perform the public dissections of which nine have been recorded. The most famous was held on 31 January 1632 which was recorded by Rembrandt 'The Anatomy Lesson of Dr. Tulp', now in the Mauritshuis Museum in The Hague.

During the plague epidemic of 1635, Tulp advocated quarantine as a means to control the spread of the disease. Because of the inefficiency of the local pharmacists, Tulp advocated placing them under the control of the municipality, resulting in the installation of the first local medical authority in the Netherlands, the Collegium Medicum Amstelodamense. Another consequence of Tulp's concerns was the publication of the first Dutch pharmacopoeia, the *Pharmacopoea Amstelaedamensis*, which for the greater part was written by him.

The scientific results of Tulp's medical and anatomical interests were published in his main work, the *Observationum medicarum libri tres* of 1641. It contains 228 case-histories from which it is clear that he rediscovered the chyle vessels of the small intestine and was the first

to describe the ileo-cecal valve at the junction of the large and small intestines. His outstanding anatomical and surgical abilities are evident in the descriptions of the ways of removing urethral stones and, in the case of a head trauma, skull fragments that pressed on the brain. Other important observations are the pulsations of the spleen, the significance of the cauda equina, and the first description of a chimpanzee in Europe.

Tulp was a great admirer of Hippocrates and consequently opposed the ideas of iatrochemists like J.B. van Helmont. This meant among other things that he rejected the use of the new medicines advocated by the iatrochemists, such as antimony. Little is known of Tulp's medical activities during his later years, when he was mainly concerned with his civic duties. Tulp died on 12 September 1674 in The Hague.

## Primary works

Pharmacopoea Amstelaedamensis, senatus auctoritate munita (Amsterdam: G. and J. Blaeu, 1636; several further editions; facsimile, 1961); Observationum medicarum libri tres (Amsterdam: Lud. Elzevirum, 1641; several further editions), the fifth edition (Leiden: Joh. du Vivie et al., 1716) has a biography and the sixth (Leiden: G. Wishoff, 1739) Tulp's funeral oration by L. Wolzogen, Dutch translations: De drie boecken der medicijnsche aanmerkingen (Amsterdam: Jacob Benjamyn, 1650), Geneeskundige waarnemingen (Leiden: Jurriaan Wishoff, 1740); Hippocrates, Aphorismen ... Alsmede d'aanmaningen van N. Tulp (Amsterdam: Jacob van Royen, 1680; several further editions).

## Secondary sources

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[L.C.P.]