

BIOGRAPHY ΒΙΟΓΡΑΦΙΑ

Kidney diseases in the mediaeval work “*Michi Competit*” by Thomas of Wroclaw

Although mediaeval medicine is oft considered to suffer from many weaknesses, there is a lot of data against this view. These include the emergence of Europe's first universities, educating doctors such as Arnaldo De Villanova, in France and others. The next generation of outstanding doctors includes Thomas of Wroclaw, born in the namesake Silesian town in 1297. At the age of 16, he started studying at the university in Montpellier, France where he met his renowned teachers: Peter Abano, Henry de Mondeville, and Bernard de Gordon. After completing his studies in Montpellier, he continued his scientific journey to Toledo (Spain), Salerno, Padua, Bologna and Rome (Italy) and to Oxford (England). Having earned a pan-European reputation, despite numerous job offers from universities, he returned to his homeland to become a court doctor for John of Bohemia and Charles IV, king of Bohemia and the Holy Roman Emperor. He died in Wroclaw in 1378 and was buried at the nearby St. Vincent Abbey. Thomas is known to have written many works, yet *Mihi Competit*, completed at the age of 63, is the most prominent. It comprises four parts: *Regimen Sanitatis*, *Aggregatum*, *Antidotarium* and *Practica Medicinalis*. Modern nephrologists might find the last one the most interesting, as its chapters no 81–87 of part 112 refer to urinary tract diseases. The titles of the subsequent parts are: *De debilitate et dolore renum* (On Renal Disease and Pain), *De apostemate renum* (On Renal Abscess), *De ulceribus renum et vesice* (On Kidney and Bladder Ulcers), *De lapide renum et vesice* (On Kidney and Bladder Stone), *De difficultate mingendi* (On Problems with Urination), *De diampne* (On Urinary Incontinence) and *De diabete* (On Diabetes). There are no known translations of the Latin-written *Michi Competit* into modern languages. Finding some of the views depicted in the work historically interesting, the authors undertook to translate it, aiming to present it to a wider audience.

“If you would understand anything,
observe its beginning and development”

Aristotle

1. INTRODUCTION

The central figure of this publication, Thomas of Wroclaw, is one of the beacons of the widely underestimated mediaeval medicine. By general consent, the switch from ancient to mediaeval medicine is believed to have happened in the late 4th and early 5th century or, as some want it, it is associated with the fall of the Roman Empire in 395 AD. At the other end, the publication of Andreas Vesalius' monumental work on anatomy *De humani corporis fabrica libri septem* in 1543 marks the end of mediaeval

medicine. In the popular mind, the Middle Ages were shaped by the great thinkers and humanists of the time like Thomas Aquinas, Albertus Magnus, Dante Alighieri or Francesco Petrarca. However, alongside philosophy, literature, architecture and painting it was the time when medicine started to grow in the first medical schools and universities, which were also open for women. Moreover, the Middle Ages saw the development of sacral medicine and the early steps of hospital-based treatment. Healthcare development remained under the inevitable influence of political changes and turmoil of the time leading to the emergence of a variety of medical schools. Consequently, we can distinguish between the Byzantine school of medicine, represented by Oribasius of Pergamon or Paul of Aegina, Arabic medicine with Rhazes or Avicenna and Western or Latin medicine, practised by Benedict of Nursia, Constantine

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Οι νεφρολογικές παθήσεις
στο μεσαιωνικό έργο
“*Michi Competit*” του Thomas
του Wroclaw

Περίληψη στο τέλος του άρθρου

Key words

Kidney diseases
Middle Ages
Thomas of Wroclaw

the African, Arnaldo de Villanova and others. Mediaeval Poland was not deprived of its renowned doctors such as Nicholas of Poland, Vitello, John of Grodkow, Jan Radlica and Thomas of Wroclaw to name but a few.

2. LIFE

Thomas of Wroclaw (1297–1378) was born into a Silesian bourgeois family, most probably in the city of Wroclaw, although, according to some researchers, it was in Tilbury, England. We strongly believe, however, that the latter probability is considerably lower. Thomas' education started in a local parish school and continued in a cathedral school. Then, with the financial support from the Norbertines, at the age of 16, he made his way to France to study medicine at the University of Montpellier, famous for its renowned lecturer – Arnaldo de Villanova. The stay in France offered Thomas a chance to meet a number of outstanding doctors of the time such as Peter Abano, Henry de Mondeville and Bernard de Gordon. It was during his time in Montpellier that he also started a friendship with the future professor of the University of Paris, the famous anatomist and surgeon Guy de Chauliac. Having completed his studies in France, Thomas continued his training at the famous ophthalmology centre in Toledo, Spain and subsequently visited some of Europe's greatest universities. These include the Italian Salerno with its remarkable botanical garden, Padua, where he studied anatomy through post-mortem examinations performed under the supervision of Nicolas Bertruccia, Bologna with Mondino de Luzzi and, last but not least, the English Oxford University where alongside William Meerle he investigated the medicinal use of herbs.

Despite proposals to become professor at various European universities, Thomas decided to finish his 17-year-long peregrination and return to his hometown of Wroclaw. Those days, the total number of medical doctors in Poland stood at a rather modest figure of 30 individuals, mostly educated at Italian and French universities and practising medicine in the towns and cities of Krakow, Wroclaw, Raciborz, Brzeg, Wloclawek and Poznan. Thomas quickly became court doctor of Silesian princes and the Czech king John of Bohemia and, finally, the emperor Charles IV. He focused his work on the struggle against epidemics, caring for the lepers in lazarets and patients in the Wroclaw hospitals of Holy Spirit, St. Elisabeth and Corpus Christi. In recognition of his achievements, Pope Clement VI granted him the title of Bishop of Sarepta, a Phoenician city near Sidon in Asia Minor, in modern Lebanon. After his death in 1378, Thomas was buried in St. Vincent Abbey near Wroclaw.¹⁻⁶

3. WORK

Despite a 17-year-long peregrination spent studying and working in Western Europe, Thomas of Wroclaw's life and professional activity have mostly been investigated only by Polish researchers. His most important works include *Alphabetum sive Collectorium, Regulae, De phlebotomia et de indiis cruoris, De urinis* and, especially, his *opus magnum*, titled *Michi Competit* also known as "Avicenna's Silesian Canon". *Michi Competit*, published in 1360, when its author was already 63, includes the biggest number of references to urinary tract diseases (fig. 1).^{7,8} The work comprises the following parts: *Regimen sanitatis* (on maintaining the human body in good health), *Aggregatum* (on simple medicines), *Antidotarium* (on complex medicines) and *Practica medicinalis* – a compendium including descriptions of diseases and treatment methods. A commented edition of the *Practica medicinalis* was published in 1989 (fig. 2). Originally written in Latin, the work has probably never been translated into any other language with the exception of one chapter (no. 39) *De debilitate cordis et syncopi* (on heart disease and fainting).⁹⁻¹¹

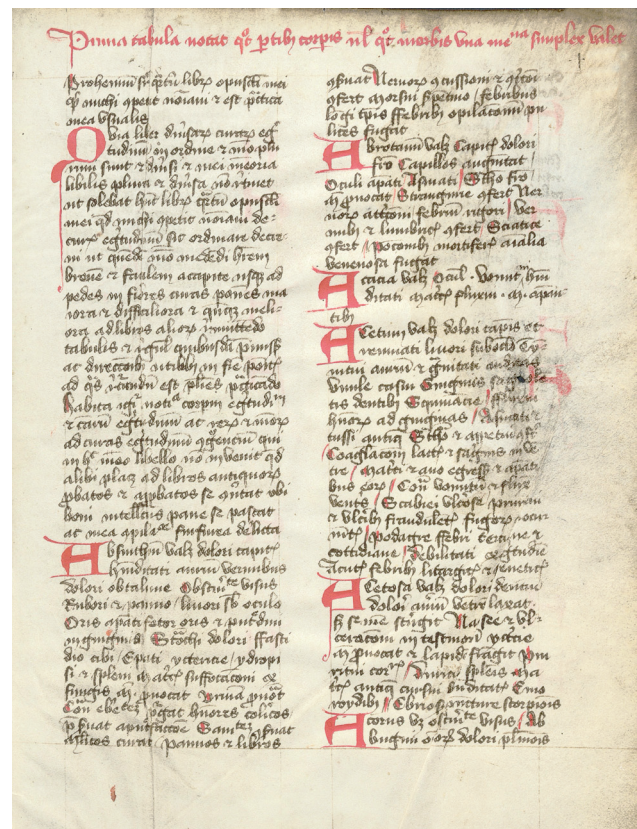


Figure 1. Title page of *Michi Competit* by Thomas of Wroclaw (courtesy of Lower-Silesian Digital Library in Wroclaw).

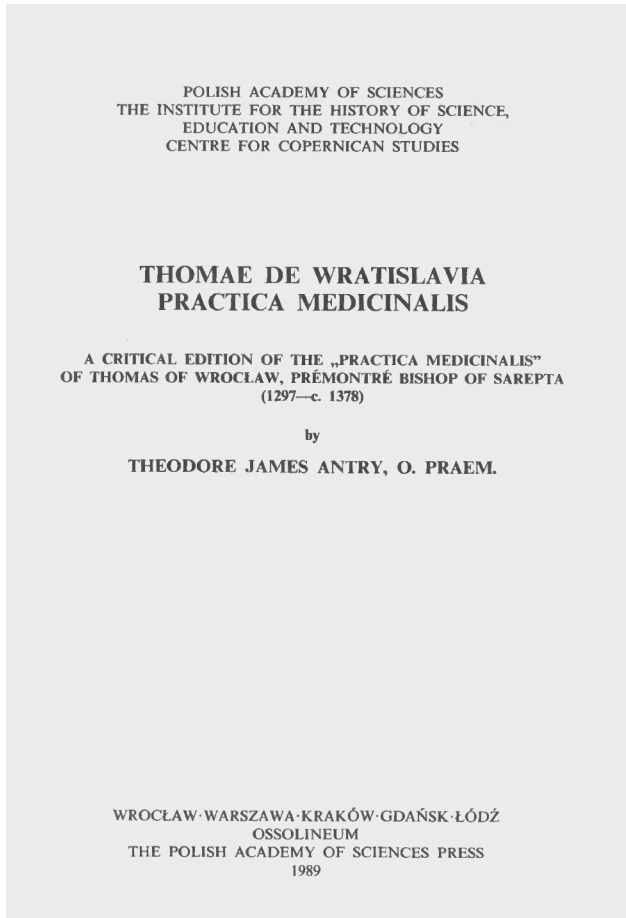


Figure 2. Title page of *Thomae De Vratislavia Practica medicinalis*, edited by Polish Academy of Science in 1989.

Seven of the 112 chapters describing a variety of ailments and diseases are devoted to urinary tract malfunctions (fig. 3). These are chapters 81–87, titled:

- Chapter 81: *De debilitate et dolore renum* (on renal disease and pain) (fig. 4)
- Chapter 82: *De apostemate renum* (on renal abscess) (fig. 5)
- Chapter 83: *De ulceribus renum et vesice* (on kidney and bladder ulcers)
- Chapter 84: *De lapide renum et vesice* (on kidney and bladder stone)
- Chapter 85: *De difficultate mingendi* (on problems with urination)
- Chapter 86: *De diampne* (on urinary incontinence)
- Chapter 87: *De diabete* (on diabetes).

In Chapter 81, Thomas wonders whether appropriate medical treatment can improve the functioning of the kidneys, which might be regarded as the mediaeval origin

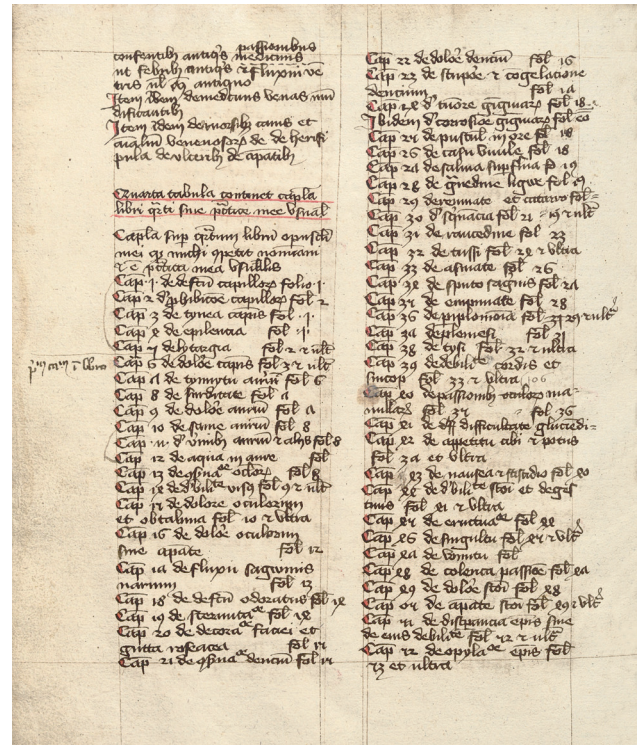


Figure 3. Part of the table of contents from *Michi Competit* (courtesy of Lower-Silesian Digital Library in Wrocław).

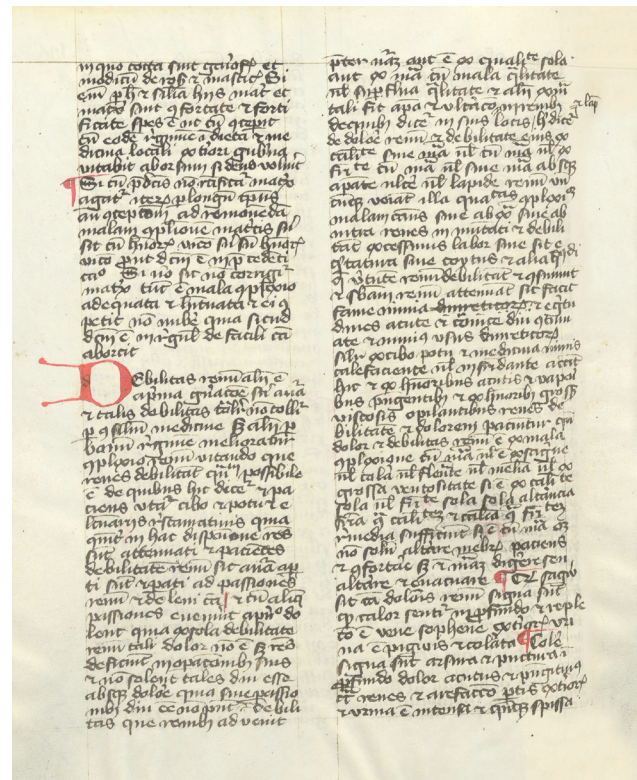


Figure 4. Chapter no 81 of *Michi Competit* (courtesy of Lower-Silesian Digital Library in Wrocław).

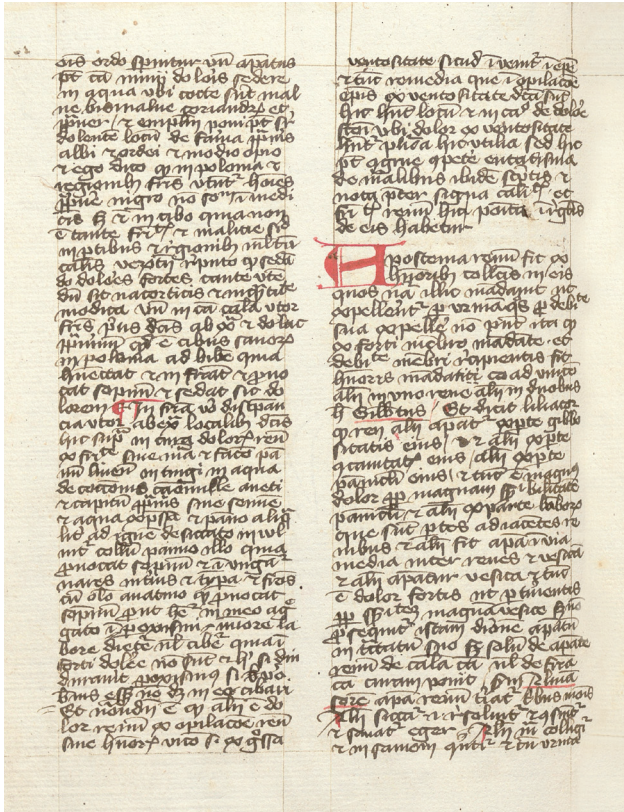


Figure 5. Chapter no 82 of *Michi Competit* (courtesy of Lower-Silesian Digital Library in Wrocław).

of preventive medicine. According to Thomas, kidneys are vulnerable to a number of internal (humor balance disturbances) and external (excessive work and bodily effort, chronic stress and malnutrition, excessive use of diuretics) factors. In the part devoted to pain he says: “[...] I believe, however, that even in case of severe pain, painkillers should be administered very carefully and in moderate amounts. Therefore, if the root-cause is of hot character I use cold from the outside and give poppy milk, a drink popular in Poland for its hydrating, cooling, soporiferous and, hence, pain-soothing properties [...]”.

In Chapter 82, he claims that kidney abscesses result from accumulation of humors, which cannot be released due to the “weakness” of the organ. Abscesses tend to occur in different parts of the organ, on the outside and the inside. Moreover, frequently they are found in both kidneys at the same time. The occurrence of abscesses can be accompanied by fever, pain, nausea and emesis. This fragment has the following wording: “[...] when pus with blood appears the fever and pain diminish giving the patient a chance to rest better, yet the feeling of heaviness in the place of the abscess remains. And then, nature permit-

ing, the abscess breaks to the benefit of the sick. If, however, nature is reluctant, it must be helped. The patient is ordered to go up and down uneven steps, and if possible, jump. Such movements frequently help the abscess to break leading to big improvement in the patient’s health [...]”.

In Chapter 83, Thomas indicates that kidney ulcers are a painful consequence of kidney abscesses, although, he points out, they can also concern the bladder and the tract between the kidneys and the bladder, that is the ureter. The symptoms they produce are similar to those described in the previous chapter. To use Thomas’ words: “[...] the common symptoms of ulceration in these three places is the extraction of blood and blood with pus through the urinary tract. If the ulcer is located in the bladder pus precedes urine and pain is felt in the bladder and the pubococcygeus muscle and urination is troublesome. If, however, the ulcer is placed in the kidneys or in the tract between the kidneys and the bladder, the urine is mixed with blood and pus [...]”.

Chapter 84 is by far the longest in the entire *Michi Competit*; this is not surprising, considering how common urolithiasis is in modern society as well. Thomas states that urinary stones affect the entire spectrum of the population and occur in various places of the urinary tract, in both sexes and all age groups. The stones can also assume a variety of shapes. As for their causes, Thomas indicates excessive amounts of slimy substance, small urine volumes due to dehydration and ureterostenosis. Regarding the last point, he makes an interesting observation: “[...] there is many a man and woman who do not have a stone in the bladder due to their high extraction potency and a wide duct through which the slimy matter can be released with the urine, especially women, whose neck of the urinary bladder is broad and very short [...]”.

In Chapter 85, Thomas takes a leaf out of his master’s book, claiming that problematic urination can be attributed to the coincidence of urolithiasis, excessive amounts of humors, presence of abscesses and other warts or excrescences in the neck of the urinary bladder. He teaches that a total and prolonged obstruction of urine is lethal. He suggests the following treatment: “[...] in the said illnesses enemas, baths and compresses of humour-soothing herbs and diuretics prove helpful in opening the urinary tract [...]”.

Chapter 86 investigates incontinence, especially in boys (nocturia) and intoxicated adult individuals. Thomas attributes this to the cold and the consequent paralysis of the urinary bladder: “[...] some urinate at night in their bed due to dreaming about being in the place where they usually urinate. It is the power of imagination that causes urination [...]”.

Chapter 87 is the last one on urinary tract ailments and concerns unstoppable urination in large volumes. Referring to modern medicine, it might be argued that it touched upon *diabetes insipidus*. The author of *Practica medicinalis* describes it as follows: “[...] it is evident, then, that diabetes insipidus is not a disease of the kidneys or bladder but is rather caused by cold and a weak liver. What makes it different from incontinence (*diampne*) is the fact that in the case of diabetes insipidus urine is involuntarily passed in much larger volumes.

In diampne, however, the volume is much smaller. It both cases, though, passing of urine is very frequent [...].”

Thomas’ recommendation for treatment of these urinary tract diseases include a proper diet, simple and complex medicines mostly of plant, animal or mineral origin, phlebotomy, simple surgical interventions and purging the organism through induced emesis or the use of enemas. A detailed discussion of such procedures, including bleeding, however, requires a separate elaboration.^{12–14}

ΠΕΡΙΛΗΨΗ

Οι νεφρολογικές παθήσεις στο μεσαιωνικό έργο “*Michi Competit*” του Thomas του Wroclaw

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Παρόλο που η μεσαιωνική ιατρική συχνά θεωρείται ότι πάσχει από πολλές αδυναμίες, υπάρχουν πολλά στοιχεία κατά της άποψης αυτής. Αυτά περιλαμβάνουν την εμφάνιση των πρώτων πανεπιστημίων της Ευρώπης, την εκπαίδευση των ιατρών όπως ο Arnaldo De Villanova, στη Γαλλία και άλλους. Η επόμενη γενιά εξαιρετικών ιατρών περιλαμβάνει τον Thomas από το Βρότλαβ, που γεννήθηκε στην ομώνυμη πόλη της Σιλεσίας το 1297. Στην ηλικία των 16 ετών, άρχισε να σπουδάζει στο πανεπιστήμιο του Μονπελιέ της Γαλλίας, όπου συναντήθηκε με τους διάσημους δασκάλους του: Peter Abano, Henry de Mondeville, και Bernard de Gordon. Αφού ολοκλήρωσε τις σπουδές του στο Μονπελιέ, συνέχισε την επιστημονική του πορεία στο Τολέδο (Ισπανία), το Σαλέρνο, την Πάντοβα, την Μπολόνια και τη Ρώμη (Ιταλία) και στην Οξφόρδη (Αγγλία). Έχοντας κερδίσει μια πανευρωπαϊκή φήμη, παρά τις πολυάριθμες προσφορές εργασίας από πανεπιστήμια, επέστρεψε στην πατρίδα του για να γίνει γιατρός στην αυλή του Ιωάννη της Βοημίας και του Κάρολου IV, βασιλιά της Βοημίας και του Αυτοκράτορα της Αγίας Ρωμαϊκής Αυτοκρατορίας. Πέθανε στο Βρότλαβ το 1378 και θάφτηκε στη μονή του Αγίου Βικέντιου της γύρω περιοχής. Είναι γνωστό πως ο Thomas έχει γράψει πολλά έργα, όμως το έργο *Mihi Competit*, που ολοκλήρωσε στην ηλικία των 63 ετών, είναι το πιο εξέχον. Περιλαμβάνει τέσσερα μέρη: *Regimen Sanitatis*, *Aggregatum*, *Antidotarium* και *Practica Medicinalis*. Οι σύγχρονοι νεφρολόγοι μπορεί να βρουν το τελευταίο πιο ενδιαφέρον, καθώς τα κεφάλαια του 81-87 του μέρους 112 αναφέρονται σε ασθένειες του ουροποιητικού συστήματος. Οι τίτλοι των επόμενων μερών είναι: *De debilitate et dolore renum* (Περί νεφρολογικής ασθένειας και πόνου), *De apostemate renum* (Περί νεφρολογικού αποστήματος), *De ulceribus renum et vesice* (Περί ελκών νεφρού και ουροδόχου κύστης), *De lapide renum et vesice* (Περί πέτρας νεφρού και ουροδόχου κύστης), *De difficultate mingendi* (Περί με προβλημάτων ούρησης), *De diampne* (Περί ακράτειας ούρων) και *De Diabete* (Περί διαβήτη). Δεν υπάρχουν γνωστές μεταφράσεις του λατινικού *Michi Competit* σε σύγχρονες γλώσσες. Βρίσκοντας μερικές από τις απόψεις που παρουσιάζονται στο έργο ενδιαφέρουσες ιστορικά, οι συγγραφείς ανέλαβαν να το μεταφράσουν, με στόχο να το παρουσιάσουν σε ένα ευρύτερο κοινό.

Λέξεις ευρετηρίου: Μεσαιώνας, Νεφρολογικές παθήσεις, Thomas του Wroclaw

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