



The History of Polyarchion (πολύαρχιον), John Chrysostom's Illness, and Access to Medicinal Treatments at the End of Late Antiquity

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Abstract: John Chrysostom's (c. 347-407) works are valuable for medical historians because they provide us with a first-hand insight into his health problems and the therapies he was treated with. John's correspondence gives us a unique opportunity to assess the popularity of certain drugs and the availability of healthcare, enabling us to verify the extant medical data. In the present study we will discuss the information on Chrysostom's illness including his mention of a medicament named *polyarchion* (πολύαρχιον) which had been sent to the archbishop by Carteria. On the basis of the recipes preserved in medical treatises by Galen as well as other medical data, we will introduce the main properties of the medicine and treatments in which it was administered. Having outlined the scope of its action, and having analysed the symptoms of Chrysostom's condition described in his correspondence to Olympias, we will establish the nature of the ecclesiastic's main ailments fully. Finally, we will also conclude on the drug's availability in the Byzantine world and on the inclusion of drug formulas in early Byzantine medical works.

Keywords: history of medical literature; history of patristic literature; history of ancient medicine; history of Byzantine medicine; pharmacology; polyarchion; John Chrysostom; Carteria of Antioch; Olympias of Constantinople

John Chrysostom (c. 347-407) is probably one of the greatest Early Church Fathers. His rich and varied life renders him a fascinating

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figure not only for Church³ and Christian theology⁴ historians but also for those who research into such down-to-earth topics as everyday life⁵ and medicine. The latter category of scholars can find a plethora of information especially in his homilies and epistolography, where the preacher frequently mentions issues connected with health and medical practices⁶.

³ John Chrysostom was an important figure in the Antiochian and Constantinopolitan Church and was involved in developments at the imperial court, which finally led to his exile. Accordingly, his ecclesiastic and political activities are regularly referred to as part of the history of the Church (for instance, see W. Mayer, *John Chrysostom as Bishop: The View from Antioch* JEH 55/3 [2004] p. 455-466; J. Barry, *Bishops in Flight: Exile and Displacement in Late Antiquity*, Oakland 2019, p. 76-131; C. Rapp, *The Early Patriarchate (325-726)*, in: *A Companion to the Patriarchate of Constantinople*, ed. Ch. Gastgeber – E. Mitsiou – J. Preiser-Kapeller – V. Zervan, Brill's Companions to the Byzantine World 9, Leiden – Boston 2021, p. 1-23) and in discussing other issues concerning late Antiquity/early Byzantium (for instance, see, J.N.D. Kelly, *Golden Mouth: The Story of John Chrysostom – Ascetic, Preacher, Bishop*, Ithaca – New York 1995, *passim*; R. Delmaire, *Les lettres de Jean Chrysostome: Espérances et désillusions d'un évêque en exil*, in: *Correspondances. Documents pour l'histoire de l'Antiquité tardive. Actes du colloque international, université Charles-de-Gaulle-Lille 3, 20-22 novembre 2003*, ed. R. Delmaire – J. Desmulliez – P.-L. Gatier, Collection de la Maison de l'Orient méditerranéen 40. Série littéraire et philosophique 13, Lyon 2009, p. 283-291; S. Bralewski, *Empress Eudoxia through the Prism of Fifth Century Ecclesiastical Histories*, VoxP 75 [2020] p. 43-66).

⁴ For instance, see R. Edwards, *The Gospel of John and Antiochene Christology: The Diverging Paths of Theodore of Mopsuestia and John Chrysostom*, SJT 74 (2021) p. 333-345; P. Szczur, *Myśl mariologiczna Jana Chryzostoma w świetle In Matthaem homiliae*, VoxP 80 (2021) p. 87-110; K. Kochańczyk-Bonińska, *John Chrysostom 'On the Incomprehensible Nature of God' – The Simpler Way of Presenting Complex Theological and Philosophical Issues*, VoxP 85 (2023) p. 91-104.

⁵ For instance, see W. Mayer, *Poverty and Society in the World of John Chrysostom*, in: *Social and Political Life in Late Antiquity*, ed. W. Bowden – A. Gutteridge – C. Machado, *Late Antique Archaeology* 3/1, Leiden – Boston 2006, p. 465-484; E. Schoolman, *Luxury, Vice, and Health: Changing Perspectives on Baths and Bathing in Late Antique Antioch*, "Studies in Late Antiquity" 1/3 (2017) p. 225-253 (esp. 228-231); P. Szczur, *Głód jako problem ekonomiczny i społeczny w świetle nauczania homiletycznego Jana Chryzostoma*, VoxP 69/38 (2018) p. 595-610.

⁶ For instance, see W. Ceran, *Jan Chryzostom o leczeniu i lekarzach*, "Acta Universitatis Lodzianensis: Folia Historica" 48 (1993) p. 3-26. Lately, researchers have started to study the psychological aspects of Chrysostom's works, for instance, see L. Neureiter, *Health and Healing as Recurrent Topics in John Chrysostom's Correspondence with Olympias*, in: *Cappadocian Writers, The Second Half of the Fourth Century (Greek Writers): Papers Presented at the Fifteenth International Conference on Patristic Studies Held in Oxford 2007*, ed. J. Baun – A. Cameron – M. Edwards – M. Vinzent, StPatr

His interest in this field is not surprising because the question of physical wellbeing was relatively often raised in early Christian literature, both in a figurative sense (for instance, conjuring the image of *Christus medicus*, healing people from their sins)⁷ as well as literally (discussing health problems, the medical profession and organisation of health care)⁸. Ecclesiastic authors also do not refrain from discussing a link between physical and spiritual health⁹. It was not only John Chrysostom that discussed issues connected with medicine but also other Fathers of the Church (especially Gregory of Nazianzus, Basil of Caesarea and Gregory of Nyssa)

47, Leuven 2010, p. 267-272; W. Mayer, *The Persistence in Late Antiquity of Medico-Philosophical Psychic Therapy*, "Journal of Late Antiquity" 8/2 (2015) p. 337-351; R.G.T. Edwards, *Healing Despondency with Biblical Narrative in John Chrysostom's Letters to Olympias*, J ECS 28/2 (2020) p. 203-231.

⁷ For instance, see S.B. Griffith, *Iatros and Medicus: The Physician in Gregory Nazianzen and Augustine*, in: *Orientalia, Clement, Origen, Athanasius, the Cappadocians, Chrysostom: Papers Presented at the Fourteenth International Conference on Patristic Studies Held in Oxford 2003*, ed. F. Young – M.J. Edwards – P.M. Parvis, StPatr 41, Leuven 2006, p. 319-325; Ch.H. Grundmann, *Christ as Physician: The Ancient Christus Medicus Trope and Christian Medical Missions as Imitation of Christ*, "Christian Journal for Global Health" 5/3 (2018) p. 3-11; B.J. Marciniak, *Medical Metaphors in Augustine's Letters*, VoxP 71 (2019) p. 373-388.

⁸ Research into the Church Fathers' writings and Church records for the purpose of the history of medicine has had a long history, for instance, see M.E. Keenan, *Augustine and the Medical Profession*, "Transactions and Proceedings of the American Philological Association" 67 (1936) p. 168-190; M.E. Keenan, *St. Gregory of Nazianzus and Early Byzantine Medicine*, "Bulletin of the History of Medicine" 9/1 (1941) p. 8-30; M.E. Keenan, *St. Gregory of Nyssa and the Medical Profession*, "Bulletin of the History of Medicine" 15/2 (1944) p. 150-161. The question is still explored in more recent literature, for instance, see V. Nutton, *Ancient Medicine*, London – New York 2004, p. 284-291; B. Caseau, *Nourritures terrestres, nourritures célestes: La culture alimentaire à Byzance*, Paris 2015, p. 136-138; A. Touwaide, *Medicine and Pharmacy*, in: *A Companion to Byzantine Science*, ed. S. Lazaris, Brill's Companions to the Byzantine World 6, Leiden – Boston 2020, p. 385-388.

⁹ For instance, see J. Cook, "*Hear and Shudder!*": *John Chrysostom's Therapy of the Soul*, in: *Revisoning John Chrysostom: New Approaches, New Perspectives*, ed. Ch.L. de Wet – W. Mayer, Critical Approaches to Early Christianity 1, Leiden – Boston 2019, p. 247-275; P. Szczur, *Kościół wobec chorych fizycznie i duchowo w świetle wybranych wschodnich tekstów prawnych IV wieku*, VoxP 78 (2021) p. 183-206; S.H. Vazquez – M.T. Gargiulo, *La concepción de enfermedad del alma en Evagrio Pónitico. Una nueva síntesis y extensión del modelo teleológico de explicación de la medicina hipocrático-galénica*, VoxP 78 (2021) p. 207-238.

mention, *inter alia*, rules of dietetics¹⁰, names of illnesses¹¹, properties of some simple medicaments¹² and names of compounds¹³ in their writings.

John Chrysostom's works are valuable for a medical historian because they provide us with a first-hand insight into his health problems and the therapies he was treated with. Health is especially prominent in John Chrysostom's correspondence from the period of his exile in Cucucos¹⁴ (404-407) when it deteriorated due to seclusion, the adverse climate, poor living conditions and the inability to acquire professional advice and medicines¹⁵. In the present study, we will discuss the information on John Chrysostom's illness, including his mention of a drug named *polyarchion* (πολυάρχιον), which had been sent to the archbishop by Carteria of Antioch¹⁶. On the basis of the drug recipes preserved in ancient and Byzantine medical treatises, we will introduce the main properties of the medicine itself and the treatments in which it was administered. Having outlined the scope of its action, and having analysed the symptoms of Chrysostom's condition described in his correspondence to Olympias¹⁷,

¹⁰ For instance, see Keenan, *Gregory of Nazianzus*, p. 28; Keenan, *St. Gregory of Nyssa*, p. 155-157.

¹¹ For instance, see Keenan, *Gregory of Nazianzus*, p. 16-18; Keenan, *St. Gregory of Nyssa*, p. 157-158.

¹² For instance, see Keenan, *Augustine*, p. 183; Keenan, *Gregory of Nazianzus*, p. 27; Keenan, *St. Gregory of Nyssa*, p. 155.

¹³ For instance, see Keenan, *Augustine*, p. 183; Keenan, *St. Gregory of Nyssa*, p. 158.

¹⁴ On Cucucos, see W. Ruge, *Kokusos*, *RE* 11/1, 1065; F. Hild – M. Restle, *Tabula Imperii Byzantini*, v. 2, *Kappadokien*, Wien 1981, p. 217-218. On Chrysostom's exile to Cucucos, for instance, see R. Delmaire, *Les "lettres d'exil" de Jean Chrysostome: Études de chronologie et de prosopographie*, *RechAug* 25 (1991) p. 74-91; Kelly, *Golden Mouth*, p. 250-271; W. Mayer, *John Chrysostom: Deconstructing the Construction of an Exile*, *ThZ* 62/2 (2006) p. 248-258.

¹⁵ For instance, see Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 4 b, 21-29, *SCh* 13bis, p. 384.

¹⁶ Joannes Chrysostomus, *Epistulae ad Carteriam* 34, PG 52, 629. On Carteria, for instance, see Delmaire, *Les "lettres d'exil" de Jean Chrysostome*, p. 116-117; W. Mayer, *John Chrysostom and Women Revisited*, in: *Men and Women in the Early Christian Centuries*, ed. W. Mayer – I.J. Elmer, Strathfield, NSW 2014, p. 217-219.

¹⁷ On Olympias, for instance, see A.-M. Malingry, *Introduction*, in: Jean Chrysostome, *Lettres a Olympias, Vie anonyme d'Olympias*, tr. A.-M. Malingrey, *SCh* 13bis, Paris 1968, p. 13-22; Delmaire, *Les "lettres d'exil" de Jean Chrysostome*, p. 144-148; M. Konieczko – A. Uciecha, *The Basis of John Chrysostom's Teaching on Widowhood*, *VoxP* 83 (2022) p. 69-70.

we will be able to establish the nature of the ecclesiastic's main ailments fully. The information will also allow us to surmise on the drug's availability in the Byzantine world and on the principles behind including drug formulas in early Byzantine medical works.

Waldemar Ceran, who studied the archbishop's works in search of medical references, rightly concludes that John Chrysostom rarely noted the names of specific remedies¹⁸. Chrysostom mentioned *polyarchion* only once, and it was in his letter to Carteria. Here the preacher expresses his gratitude to her for sending him the medicament together with nard oil¹⁹ and *gleukinon* (γλεούκινον), i.e. another aromatic oil, produced from *inter alia* sweet new wine and a blend of fragrant plant substances²⁰. From his narrative we learn that he knew precisely that both oils had been sent along with the medicament in order to restore *polyarchion*'s plasticity, lost during its long journey to Cucusus. Another important piece of information included in the letter is that Carteria prepared the remedy herself²¹. Although she is the addressee of few extant letters, the contents available allow the presumption that the woman herself was of fragile health²². On these grounds we may deduce that she was interested in pharmacopeia for personal reasons and probably, thanks to her knowledge in this area, she was able to produce a drug meeting Chrysostom's needs.

The tradition of preparing *polyarchion* dates back to Antiquity. Its name was coined after Polyarchus, who was believed to be the first who devised the drug. Modern scholars associate him with a pharmacist living at the turn of the 1st c. BC and the 1st c. AD²³. As far as Greek medical treatises are concerned, the earliest preserved recipes for the medication are to be found in Galen of Pergamum's (2nd/3rd c. AD) writings. For instance, in his *De compositione medicamentorum secundum locos*, we encounter two prescriptions for a compound remedy called *polyarchion*, taken from Andromachus the Younger's (1st c. AD) correspondence,

¹⁸ Ceran, *Jan Chryzostom*, p. 19.

¹⁹ On its components, way of preparation as well as medical properties, see Dioscorides, *De materia medica* I 62, 1 (1, 56, 19-57, 2).

²⁰ On its components, way of preparation as well as medical properties, see Dioscorides, *De materia medica* I 57, 1 (1, 53, 1-9).

²¹ Joannes Chrysostomus, *Epistulae ad Carteriam* 34, PG 52, 629.

²² Joannes Chrysostomus, *Epistulae ad Carteriam* 18, PG 52, 623; 34, PG 52, 629-630; 227, PG 52, 736.

²³ P.T. Keyser, *Poluarkhos (30 BCE-35 CE)*, in: *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs*, ed. P.T. Keyser – G. Irby Massie, London – New York 2008, p. 680.

which teaches us that the drug was versatile enough to be recommended in the treatment of all internal organs (πρὸς τὰ ἐντὸς πάντα)²⁴. The fact that both recipes were provided with Galen's own versions²⁵, and that they were repeated in *De compositione medicamentorum per genera*²⁶, implies that he found them useful in his medical practice. In fact, Galen's works seem to confirm that he himself considered the medicine very effective because he gives us twelve recipes for the drug in total. The number includes: two full recipes by a certain Asclepiades²⁷ (most likely Asclepiades Pharmacion²⁸ [1st/2nd c. AD]) as well as Galen's comment testifying to the existence of a third recipe (which was not quoted in its entirety by Galen)²⁹ and Galen's remarks on Asclepiades' second and third recipe, which thereby became a separate formula devised by Galen himself on their basis³⁰. Furthermore, four of Andromachus' formulas (which are, in fact, a pair of recipes in two slightly different versions); two annotations concerning bdellium (βδέλλιον)³¹ (one in *De compositione medicamentorum secundum locos* and the other in *De compositione medicamentorum per genera*) relating to the first of Andromachus' recipes (which, as they refer to two slightly different versions of the same prescription,

²⁴ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 186-187.

²⁵ Galen's own references to Andromachus' formulas are preserved both in *De compositione medicamentorum secundum locos* and in *De compositione medicamentorum per genera*. The first remark arises after Andromachus' first recipe, and implies that Galen tended to augment its list of ingredients with bdellium, see Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 186; Galenus, *De compositione medicamentorum per genera* VII 7, p. 981. Whereas Galen's second annotation appears after Andromachus' second formula of *polyarchion* and is constituted by a recipe composed by Galen himself, see Galenus, *De compositione medicamentorum secundum locos*. VIII 5, p. 187; Galenus, *De compositione medicamentorum secundum locos* VII 7, p. 981.

²⁶ See above. A closer reading of the said recipes reveals a few differences among them, which, however, have no bearing on the analyses conducted in the present study.

²⁷ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 184-186.

²⁸ Paul T. Keyser (*Poluarkhos*, p. 680) identifies Asclepiades, who preserved Polyarchus' recipes as Asclepiades Pharmacion.

²⁹ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 186: “ἐν ἄλλῳ καὶ βδέλλιον γο δ'. ἀμμωνιακοῦ θυμιάματος γο δ'. νάρδου Ἀσιανῆς τῶν μύρου λίτρας γ'. οἴνου Φαλερίνου ὅσον ἐξαρκεῖ, σκεύαζε κατὰ τρόπον”.

³⁰ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 186: “ἐγὼ δὲ προσβάλλω, μαστίχης, κινναμώμου, ἀμμωνιακοῦ θυμιάματος, στύρακος, ἀλόης, ὀποβαλάμου ἀνά γο γ'”.

³¹ An aromatic gum obtained from *Commiphora africana* (A.Rich.) Endl. and from *Commiphora wightii* (Arn.) Bhandari.

appear to be a testimony to the existence of two more formulas for *polyarchion*). Ultimately, the total number includes two full formulas conceived by Galen quoted after Andromachus' writings (one in *De compositione medicamentorum secundum locos* and the other in *De compositione medicamentorum per genera*). This number would not be so high had Galen considered the medicine to be ineffective. We are also positive that the popularity of the drug did not come to an end with Galen's death, as *polyarchion* is frequently recommended by Oribasius³² (4th/5th c. AD), Aetius of Amida³³ (6th c. AD), Alexander of Tralles³⁴ (6th/7th c. AD), the author of the *Metrodora* collection³⁵ (6th/7th c. AD), Paul of Aegina³⁶ (7th c. AD) and Nicolaus Myrepsus (13th c. AD)³⁷, to mention but the most important. The medicine, therefore, can be said to have been well-known long before and long after Chrysostom's lifetime and its recipes were embedded in popular medical writings.

From Andromachus' text we already know that *polyarchion* was used in curing the ailments of internal organs. More specific information on the medicament's scope of action is given by Asclepiades. From his writings, we learn that his first formula for *polyarchion* was administered in the therapy of inflammation of the lungs, alimentary tract disorders, spleen trouble, dropsy, ailments of the bladder and the uterus as well as all problems with tendons³⁸. Thus, the said range of action confirms Andromachus' note on *polyarchion*'s effectiveness. Asclepiades' second formula, in turn, allows us to narrow down the scope of the drug's most effective impact to the alimentary tract, as the author emphasises that the medicine was especially recommended in curing such disorders as permanent indigestion, souring the consumed foods in the stomach and vomiting bile³⁹. Our conclusion is supported by another fragment

³² Oribasius, *Synopsis ad Eustathium filium* IX 43, 19 (303, 17, CMG VI 3); IX 54, 3 (309, 5, CMG VI 3).

³³ For instance, see Aetius Amidenus, *Libri medicinales* VIII 63 (2, 512, 19, CMG VIII 2); XVI 75 (121, 6).

³⁴ Alexander Trallianus, *Therapeutica* I 12, p. 499; VII 8, p. 301; VIII 2, p. 347.

³⁵ *Metrodora: De mulierum morbis uteri* 118, p. 92-93.

³⁶ Paulus Aegineta, *Epitome* III 68, 1 (1, 285, 28, CMG IX 1); III 74, 3 (1, 292, 7, CMG IX 1). Paul's work also preserves two formulas for *polyarchion*, which will be tackled later on in the text.

³⁷ Nicolaus Myrepsus, *Dynameron*, ε, 3 (501, 19-502, 3); ε, 4 (502, 4-8).

³⁸ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 184.

³⁹ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 185-186 (scope of action, see p. 185).

of Galen's writings. First, Andromachus' *polyarchion* formulas in Galen's *De compositione medicamentorum secundum locos* are included in the chapter devoted to curing problems of the gastric cardia⁴⁰ (στόμα τῆς κοιλίας)⁴¹, which leads us to believe that the drug was thought to be primarily aimed at gastric problems. Secondly, Pergamene's *De compositione medicamentorum per genera* confirms that the medicine was also employed in the treatment of ailments of the spleen⁴². Last but not least, from *De compositione medicamentorum secundum locos* we learn that the drug was also administered in treating liver inflammation⁴³. In conclusion, Galen maintains that the medicament was used mainly to treat internal organs involved in the specific stage of the digestive process which takes place in the abdominal cavity. Early-Byzantine treatises confirm the above supposition as they teach us that *polyarchion* was, for instance, applied in health problems generated by disorders of the liver (resulting in dropsy)⁴⁴ and the spleen (causing melancholy⁴⁵, and four-day fever⁴⁶). The physicians also recommended the remedy for gastric ailments⁴⁷ and anorexia (ἀνορεξία)⁴⁸.

The fragments of Andromachus' letter and Soranus' (1st/2nd c. AD) extant writings are the earliest that allow us to pinpoint how the doctors defined

⁴⁰ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 177.

⁴¹ For identification of στόμα τῆς κοιλίας, see Galenus, *De locis affectis* V, 6, 1 (330, 1-9, CMG V 6/1/3 = Kühn, v. 8, p. 338-339). Also see O. Powell, *Galen's Medical and Scientific Terminology*, in: Galen, *On the Properties of Foodstuffs (De alimentorum facultatibus)*, tr. O. Powell, Cambridge – New York 2003, p. 24-25.

⁴² Galenus, *De compositione medicamentorum per genera* VII 7, p. 980-981.

⁴³ Galenus, *De compositione medicamentorum secundum locos* VIII 9, p. 219-220.

⁴⁴ Paulus Aegineta, *Epitome* III 48, 2 (1, 256, 15, CMG IX 1). Dropsy was believed to be caused by a liver disorder, for instance, see Paulus Aegineta, *Epitome* III 48, 1 (1, 255, 6-30, CMG IX 1).

⁴⁵ Aetius Amidenus, *Libri medicinales* VI 10 (2, 149, 15, CMG VIII 2). Melancholy was supposed to be caused by the excess of black bile not absorbed by the spleen, for instance, see Galenus, *De naturalibus facultatibus* II 9 (LCL 71, p. 206 = Kühn, v. 2, p. 133).

⁴⁶ Aetius Amidenus, *Libri medicinales* V 84 (2, 63, 4, CMG VIII 2). Four-day fever was thought to be caused by black bile, for instance, see Galenus, *De febrium differentiis* II 2, p. 336. On the subject, see K.A. Stewart, *Galen's Theory of Black Bile: Hippocratic Tradition, Manipulation, Innovation*, Leiden – Boston 2019, p. 136-144.

⁴⁷ Aetius Amidenus, *Libri medicinales* IX 32 (352, 3); Paulus Aegineta, *Epitome* III 43, 2 (1, 237, 17, CMG IX 1).

⁴⁸ Paulus Aegineta, *Epitome* III 37, 6 (1, 226, 26, CMG IX 1).

the result of the medicament's action, as they call it a *malagma* (μάλαγμα)⁴⁹, i.e. a softening medicament. This categorisation is corroborated fully by Galen both in *De compositione medicamentorum secundum locos*⁵⁰ and in *De compositione medicamentorum per genera*⁵¹. The medicine was also defined in a similar manner by the early-Byzantine physicians⁵². In conclusion, we may assume that the medicament was predominantly administered to cure swellings, hardenings and tumours located in the abdominal cavity.

The fact that in *De compositione medicamentorum secundum locos* recipes for *polyarchion* taken from Andromachus' and Asclepiades' works were incorporated into the chapter discussing *μαλάγματα* that were called external⁵³ allows us to further elaborate on its form and application. We already know from Chrysostom's correspondence that what he received from Carteria was solid due to desiccation and that it required restoring its plasticity with scented oils. This information suggests that its final consistency was akin to either a poultice or an unguent. This riddle can be solved with the use of the medical sources in which *polyarchion* was regularly defined as an *epithema* (ἐπίθεμα)⁵⁴, which unambiguously confirms that it was administered as a cataplasm⁵⁵, i.e. a mouldable poultice applied on the skin, the consistency of which could be modified according to the needs of an individual therapy. To be more specific, in Paul of

⁴⁹ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 186; Soranus, *Gynaeciorum libri* III, 6, 32, 4 (115, 8, CMG IV); III 9, 38, 3 (118, 1-2, CMG IV).

⁵⁰ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 177. On the action of softening medicaments, for instance, see Galenus, *De simplicium medicamentorum temperamentis ac facultatibus* V 4-5, p. 714-722. A summary of Galen's teachings, see Oribasius, *Collectiones medicae* XIV 38, 1 (2, 211, 1-14, CMG VI 1/2).

⁵¹ Galenus, *De compositione medicamentorum per genera* VII 7, p. 976.

⁵² Oribasius, *Synopsis ad Eustathium filium* IX 54, 3 (309, 5, CMG VI 3); Aetius Amidenus, *Libri medicinales* XVI 75 (121, 5-6); XVI, 88 (135, 20-21); Paulus Aegineta, *Epitome* III 37, 6 (1, 226, 25-26, CMG IX 1); III 68, 1 (1, 285, 28, CMG IX 1); III 70, 1 (1, 288, 1-2, CMG IX 1).

⁵³ ἔξωθεν ἐπιτιθέμενα, see Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 177.

⁵⁴ A few Byzantine examples suffice: Oribasius, *Synopsis ad Eustathium filium* IX 43, 19 (303, 17, CMG VI 3); Aetius Amidenus, *Libri medicinales* V 84 (2, 63, 4, CMG VIII 2); VIII 63 (2, 512, 19, CMG VIII 2); XVI 61 (85, 6-9), etc.; Paulus Aegineta, *Epitome* III 43, 2 (1, 237, 16-17, CMG IX 1); III 70, 1 (1, 288, 1-2, CMG IX 1); III 74, 3 (1, 292, 7, CMG IX 1), etc.

⁵⁵ Oribasius, *Synopsis ad Eustathium filium* IX 43, 18-19 (303, 16-17, CMG VI 3); Aetius Amidenus, *Libri medicinales* XVI 83 (130, 12-16); Paulus Aegineta, *Epitome* III 74, 3 (1, 292, 6-7, CMG IX 1).

Aegina's treatise we read that the term ἐπιθέματα was used in reference to those cataplasms which were applied to the abdominal area⁵⁶.

The source materials on ἐπιθέματα also enable one to draw information on *polyarchion*'s strength of action. Notably, they imply that the said remedy belonged to the category of medicaments that were used once mild ones had failed but before more drastic measures. A fine example of such employment we find in a fragment of Galen's *De methodo menendi* devoted to the therapy of the disorder known as *atonos gaster* (ἄτονος γαστήρ), i.e. feeble stomach. The text informs us that if anointing the stomach area with scented oils and applying a wax-based ointment called *kerote* (κηρωτή) failed, stronger drugs, such as ἐπιθέματα, were used. Next, if the treatment was still not successful, even more powerful remedies were applied⁵⁷. The above perfectly corresponds with the specific data on *polyarchion*'s role in medical procedures, being administered in complex therapies after drugs of mild action and before those of greater power⁵⁸. Therefore, one might conclude that *polyarchion* belonged to the category of medium-strength remedies.

As far as prescriptions for the analysed medicine are concerned, apart from the twelve recipes preserved in Galen's writings, there are four other sources that provide us with full formulas for *polyarchion*: these are the works by Alexander of Tralles (one formula)⁵⁹, Paul of Aegina (two formulas)⁶⁰, Nicolaus Myrepsus (two formulas)⁶¹ and the *Metrodora* collection (two formulas)⁶². Since the extant recipes differ in the number of

⁵⁶ Paulus Aegineta, *Epitome* VII 18, 1 (2, 368, 14-23, CMG IX 1).

⁵⁷ Galenus, *De methodo medendi* VII 4 (LCL 517, p. 250, 252 = Kühn, v. 10, p. 465-466).

⁵⁸ For instance see, Aetius Amidenus, *Libri medicinales* V 84 (2, 62, 5-64, 3 [*polyarchion* – V 84 {2, 63, 4}], CMG VIII 2); VI 10 (2, 147, 5-150, 27 [*polyarchion* – VI 10 {2, 149, 15}], CMG VIII 2); Paulus Aegineta, *Epitome* III 37, 5-6 (1, 225, 29-227, 3 [*polyarchion* – III 37, 6 {1, 226, 26}], CMG IX 1); III 48, 2-4 (2, 255, 31-258, 10 [*polyarchion* – III, 48, 2 {256, 15}], CMG IX 1).

⁵⁹ Alexander Trallianus, *Therapeutica* VII 8, p. 301.

⁶⁰ Paulus Aegineta, *Epitome* VII 18, 4 (2, 369, 19-24, CMG IX 2); VII 18, 5 (2, 370, 1-6, CMG IX 2). The first formula will be treated later on in the text. The other is of unknown provenience. As the recipe includes typical components, it only testifies to the circulation of a variety of *polyarchion*'s prescriptions up to the 7th c. AD; cf. our conclusions.

⁶¹ Nicolaus Myrepsus, *Dynameron*, ε, 3 (501, 19-502, 3); ε, 4 (502, 4-8). Cf. later in the text.

⁶² Cf. note 35.

ingredients (ranging from four⁶³ to thirty one⁶⁴) we can opine that there was no standardised formula for the drug. However, despite such significant differences in the number of ingredients, we can specify a core group constituted by those which form the shortest, but complete, formula for *polyarchion* considered effective by Galen⁶⁵, which are: wax, terebinth resin, true cardamom (*Elettaria Cardamomum* [L.] Maton), *Cyperus rotundus* (L.), *kyprinon* oil (κύπρινον), and a variety of frankincense termed *manna* (μάννα). The fact that they are included in Andromachus' first prescription from *De compositione medicamentorum secundum locos*, and that they regularly appear in other formulas implies that these were the main active substances of the remedy.

Although we do not know Polyarchus' original recipe, the material presented above implies that, in all probability, it was unlikely to have been complex. This conclusion can be reached on the basis of the number of ingredients included in Andromachus' formulas, provided, of course, that Polyarchus' original prescription was known to him first hand. Whatever the case, Andromachus is the earliest extant witness to its contents. Asclepiades (again supposing that it was also accessible to him) chose not to simply repeat it but augment the list of its ingredients. Galen leaves no clear information on his own direct access to Polyarchus' original recipe but presents Andromachus' and Asclepiades' versions. Given the fact that Galen composed his two full formulas on the basis of Asclepiades' first recipe and the fact that Alexander of Tralles, Metrodora and Paul of Aegina definitely quote ingredients of the same prescription⁶⁶, we can hypothesise that it was Asclepiades' recipe that prevailed up to the 7th c. AD. Pergamene's formula reads as follows:

[Take] one mina of wax, terebinth resin, bdellium resin, ammoniacum incense, cardamom, *Cyperus rotundus*, twenty five drachms of melilot, Nepal cardamom, Indian nard, saffron, myrrh, frankincense, *xylokinamomon*

⁶³ See the second *Metrodora* formula, cf. note 35.

⁶⁴ The material for drawing such a conclusion includes Asclepiades' second and third formulas for *polyarchion* plus Galen's annotation to those recipes. We opine that the aromatic unguent from Asian nard mentioned in Asclepiades' third formula is a substitute for Indian nard listed in his second recipe.

⁶⁵ Had not it been considered effective it would not have been quoted twice and annotated for the sake of its improving.

⁶⁶ Cf. conclusions.

(ξυλοκινάμωνον)⁶⁷ [and] one *kotyle* of κύπρινον oil. [Add] Italian wine as much as needed, prepare as usual and use. [In order to dilute the medicine use either] pure wine or one mixed with κηρωτή ointment prepared with the addition of κύπρινον oil⁶⁸.

Analysis of the medicament's components in the light of *materia medica* contemporary to John Chrysostom (but, overall, based on that of Dioscorides (1st c. AD), Galen and other earlier medical authors) shows that the remedy was purported to have, first and foremost, warming⁶⁹ and drying⁷⁰ properties. Moreover, many of the above substances were also

⁶⁷ From Dioscorides' (*De materia medica* I 14, 3 [1, 20, 2-3]) and Plinius' (C. Plinius Secundus, *Naturalis historia* XII 19, 91 [2, 407, 5-6, {Bibliotheca Teubneriana}]) narrations we might suppose that the term referred to cinnamon wood.

⁶⁸ Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 185.

⁶⁹ Selected examples: Oribasius, *Collectiones medicae* XIV 10, 26 (2, 191, 10, CMG VI 1/2) (In the said chapter Oribasius classifies melilot as a substance of warming and cooling nature. However, as the discussed remedy was known, first and foremost for its warming properties, in all likelihood, in this case, melilot was used due to the latter property); XIV 14, 4 (2, 194, 27 [terebinth resin], CMG VI 1/2); XIV 14, 6 (2, 195, 10 [cardamom {considerably warming}], CMG VI 1/2); XIV 15, 1 (2, 196, 23-24 [nard {first degree}], CMG VI 1/2); XIV 16, 1 (2, 196, 29 [saffron {second degree}], CMG VI 1/2); XIV 16, 1 (2, 196, 29 [frankincense {second degree}], CMG VI 1/2); XIV 16, 1 (2, 197, 5 [myrrh {second degree}], CMG VI 1/2); XIV 17, 1 (2, 197, 10-11 [Nepal cardamom {third degree}], CMG VI 1/2); XV 1, 10 κ, 45 (2, 258, 21-22 [wax {slightly warming}], CMG VI 1/2); XV 1, 10 κ, 89 (2, 261, 16-17 [Cyperus rotundus {warming without irritation}], CMG VI 1/2). Although Oribasius did not contain in his writings any characteristics of κύπρινον oil, from Dioscorides (*De materia medica* I, 55, 3 [1, 51, 20]) we learn that it was known for its warming properties.

⁷⁰ Selected examples: Oribasius, *Collectiones medicae* XIV 24, 3 (2, 202, 18 [Cyperus rotundus {drying without being irritating}], CMG VI 1/2); XIV 24, 3 (2, 202, 22 [myrrh {drying without being irritating}], CMG VI 1/2); XIV 26, 1 (2, 203, 25 [myrrh {second degree}], CMG VI 1/2); XIV 25, 1 (2, 203, 9 [saffron {first degree}], CMG VI 1/2); XIV 25, 1 (2, 203, 10 [frankincense {first degree}], CMG VI 1/2); XIV 26, 1 (2, 203, 21-23 [nard {second degree}], CMG VI 1/2); XV 1, 1 α, 59 (2, 243, 20 [Nepal cardamom {considerably drying, cf. XV 1, 1 α, 37 ((2, 242, 7, CMG VI 1/2))}], CMG VI 1/2); XV 1, 2 β, 13 (2, 247, 25 [bdellium], CMG VI 1/2).

characterised as diaphoretic⁷¹, promoting digestion⁷², softening⁷³, thinning or cutting⁷⁴, diuretic⁷⁵, cleansing⁷⁶, attracting harmful juices⁷⁷, removing pus from the body⁷⁸ and opening inlets in the vessels and internal organs⁷⁹. As the medicine was said to provide an ultimately softening action, one might conclude that such a combination was thought to effectively reduce those swellings, hardenings and tumours that were formed due to the excess of thick, viscous and cold humours in the patient's body by means of drawing the harmful substances towards the surface and thus exposing them to an externally administered drug. Subsequently, they would be either transformed into acceptably thin and warm humours (which could be turned finally into the tissue of the body) or disposed through diaphoresis, urination, defecation or stimulating the formation of an external ulcer. There is, however, one action of *polyarchion*'s ingredients that appears not to correspond to

⁷¹ Selected examples: Oribasius, *Collectiones medicae* XIV 10, 26 (2, 191, 9 [melilot], CMG VI 1/2); XIV 60, 2 (2, 230, 24 [terebinth resin], CMG VI 1/2); XIV 60, 2 (2, 230, 27 [myrrh], CMG VI 1/2); XIV 62, 1 (2, 232, 3 [Cyperus rotundus], CMG VI 1/2); XIV 62, 1 (2, 232, 5 [Nepal cardamom], CMG VI 1/2); XIV 62, 1 (2, 232, 6 [nard], CMG VI 1/2); XV 1, 10 κ, 45 (2, 258, 21-22 [wax {slight diaphoretic}], CMG VI 1/2).

⁷² Selected examples: Oribasius, *Collectiones medicae* XIV 10, 26 (2, 191, 9 [melilot], CMG VI 1/2); XIV 36, 1 (2, 208, 20 [Nepal cardamom], CMG VI 1/2); XIV 36, 1 (2, 208, 21 [wax], CMG VI 1/2); XIV 36, 1 (2, 208, 21 [saffron {slightly promoting digestion – XV 1, 10 κ, 78 (2, 260, 26, CMG VI 1/2)}], CMG VI 1/2); XIV 36, 1 (2, 208, 21-22 [frankincense], CMG VI 1/2); XIV 36, 1 (2, 208, 22 [myrrh], CMG VI 1/2).

⁷³ Oribasius, *Collectiones medicae* XIV 38, 14 (2, 212, 10 [terebinth resin], CMG VI 1/2); XV 1, 1 α, 58 (2, 243, 18 [ammoniakon], CMG VI 1/2); XV 1, 2 β, 13 (2, 247, 24 [bdellium], CMG VI 1/2). From Dioscurides we learn that softening properties were also attributed to κύπρινον (*De materia medica* I 55, 3 [1, 51, 20]) and wax (*De materia medica* II 83, 3 [1, 168, 14]).

⁷⁴ Oribasius, *Collectiones medicae* XIV 33, 9 (2, 206, 29 [Nepal cardamom], CMG VI 1/2); XV 1, 10 κ, 98 (2, 261, 17 [the root of Cyperus rotundus as a substance able to cut particles thickening humours], CMG VI 1/2).

⁷⁵ Oribasius, *Collectiones medicae* XIV 49, 1 (2, 221, 30-31 [root of Cyperus rotundus], CMG VI 1/2); XIV 49, 1 (2, 221, 31-32 [nard], CMG VI 1/2); XIV 50, 2 (223, 8 [frankincense], CMG VI 1/2).

⁷⁶ Oribasius, *Collectiones medicae* XIV 48, 1 (2, 221, 4 [terebinth resin], CMG VI 1/2); XIV 48, 1 (2, 221, 7 [myrrh], CMG VI 1/2).

⁷⁷ Oribasius, *Collectiones medicae* XIV 59, 6 (2, 229, 9-10 [terebinth resin], CMG VI 1/2).

⁷⁸ Oribasius, *Collectiones medicae* XIV 37, 12 (2, 210, 12 [frankincense], CMG VI 1/2).

⁷⁹ Dioscurides, *De materia medica* I 55, 3 (1, 51, 20 [κύπρινον]).

the above explanation. It is astringency⁸⁰ which, according to medical theory, should close the body's pores and narrow the internal passages (which ought to, on the one hand, counteract diaphoresis, and, on the other, slow down the action of the alimentary and excretory systems)⁸¹. Nevertheless, since the property was present in the ingredients only to a slight degree, its impact must have been regarded as negligible.

As far as the method of the drug's preparation is concerned, none of the authors provides us with any detailed information on this subject. However, the phrase *σκεύαζε κατὰ τρόπον* (i.e. prepare in a normal way), found in most of the recipes in Galen's *De compositione medicamentorum secundum locos*⁸² implies that there was a general rule according to which the medicine was produced. Moreover, we may conclude that its production was not complicated since we know that it was prepared by a person who would not have been a member of the medical profession, i.e. Carteria, on her own. The preparation technique itself was mentioned, for instance, by Galen in his discussion on the so-called white poultices⁸³, and implies that solid components were carefully pounded in the mortar with a liquid so that the resulting paste could easily be mixed with wax (which was beforehand combined with liquid resins, scented oils and wine). As the obtained medicine had a tendency to solidify, its plasticity was restored, for instance, with slight amounts of essential oils⁸⁴, directly before use.

⁸⁰ Selected examples: Oribasius, *Collectiones medicae* XV 1, 10 κ, 78 (2, 260, 23 [saffron {negligibly astringent}], CMG VI 1/2); XV 1, 11 λ, 15 (2, 262, 20 [frankincense {negligibly astringent}], CMG VI 1/2); XV 1, 12 μ, 11 (2, 264, 14 [melilot {slightly astringent}], CMG VI 1/2); XV 1, 13 ν, 1 (2, 266, 27-28 [nard adequately astringent; the fact that Oribasius put the plant on the list of diaphoretic substances proves that its astringency was thought to be ultimately outdone by its ability to stimulate purging by means of evaporation], CMG VI 1/2).

⁸¹ Galenus, *De methodo menendi* VIII 2 (LCL 517, p. 370, 372 = Kühn, v. 10, p. 547).

⁸² Galenus, *De compositione medicamentorum secundum locos* VIII 5, p. 185; VIII 5, p. 186; VIII 5, p. 187.

⁸³ General guidelines are given by Galen in the introduction to the chapter on white poultices, see Galenus, *De compositione medicamentorum per genera* I 12, p. 409-413. More specific information is included in individual formulas, for instance see Galen's discussion of the poultice prepared with white pepper, see Galenus, *De compositione medicamentorum per genera* I 13, p. 415-416.

⁸⁴ Such additives were used by Chrysostom.

Although there is no mention of the price of the medicament in any of the extant literary sources, we have grounds to conclude that it would not have been cheap. The vast majority of its ingredients were classified as aromatics and were imported from distant places, far from the centres of the Graeco-Roman civilisation⁸⁵. The fact that they were transported to Byzantium over long distances, implies that they would have been very expensive, and thereby available only to the wealthy. Consequently, their high prices must have resulted in the costliness of the final product⁸⁶.

Since we know that Carteria belonged to the privileged class⁸⁷, Chrysostom's remark about her preparing the drug herself may come as a surprise, because her financial position meant that she would have been able to purchase the medicine from pharmacists or doctors the moment she needed it. Chrysostom's comments also imply that she must have personally used the medication quite regularly. It is also meaningful that he stresses the fact that Carteria prepared *polyarchion* not in haste but with due diligence. His words imply that the time necessary for the drug's preparation was not fixed, and the duration of its production had an impact on its effectiveness. We might suppose that the process tended to become longer the more ingredients were listed in a given formula. If so, the fragment testifies not only to Carteria's familiarity with the drug

⁸⁵ For instance, see F. Rotelli, *Trade and Exploration*, in: *A Cultural History of Plants: In the Post-Classical Era*, v. 2, ed. A. Touwaide, London – New York – Oxford – New Delhi – Sydney 2022, p. 64-65.

⁸⁶ Although we do not possess the exact prices of the mentioned aromatics from Chrysostom's lifetime, we have a general idea of their market value in the period between the 4th and the 6th c. AD. From *Edictum Diocletiani* we learn that, for instance, in the early 4th c. AD a libra of cinnamon wood cost 125 *denarii* (*Edictum Diocletiani* 34, 5, p. 214-215), the same amount of bdellium – 100 *denarii* (*Edictum Diocletiani* 34, 7, p. 214-215) and cardamom – 40 *denarii* (*Edictum Diocletiani* 34, 73, p. 218-219). As for the later period, Aetius of Amida's treatise teaches us that nard, Nepal cardamom and myrrh were classified as components usually included in the medicaments targeted at the rich (οἱ πλούσιοι), which means that the ingredients heightened the price of *polyarchion* prepared according to the analysed formula in the 6th c. AD as well, see Aetius Amidenus, *Libri medicinales* VI 65 (2, 212, 11-12, CMG VIII 2). All in all, since the presented material proves the costliness of the exotic substances of the drug, and therefore of the medicine itself in the period before and after the preacher's lifetime, we might suppose that its price was equally high in his days.

⁸⁷ Carteria was an Antiochian aristocrat, for instance, see Mayer, *Constantinopolitan Women in Chrysostom's Circle*, VigCh 53/3 (1999) p. 282, 286; W. Mayer, *John Chrysostom as Bishop*, p. 464; W. Mayer, *Patronage, Pastoral Care and the Role of the Bishop at Antioch*, VigCh 55/1 (2001) p. 64.

and to Chrysostom's ability to discern a more effective medicament from a poorer one, but it also appears to corroborate the existence of a variety of formulas for *polyarchion*, circulating in the early 5th c. AD Antioch. It could be argued, therefore, that both Carteria and John knew the drug well and had previously profited from its therapeutic action many a time.

There are two other women who should be discussed in the context. The first was Olympias, a wealthy⁸⁸ widow living in the capital of the Empire. In letter XVII, Chrysostom informs her that he himself used a drug which had been sent to him by a woman by the name of Syncletion (who is also believed to have been an affluent Constantinopolitan)⁸⁹ that was very effective against his gastric problems. As far as the said medicament is concerned, it was not only used externally⁹⁰ (probably as a poultice) exactly like *polyarchion*, but it also shared its scope of action⁹¹. John Chrysostom encourages Olympias to use it herself and also asks her to turn to Comes

⁸⁸ For instance, see J.H.W.G. Liebeschuetz, *Friends and Enemies of John Chrysostom*, in: *Maistor: Classical, Byzantine and Renaissance Studies for Robert Browning*, ed. A. Moffat, *Byzantina Australiensia* 5, Leiden – Boston 1984, p. 101-102, 104-106, 108; Mayer, *Constantinopolitan Women*, p. 267-269; Mayer, *John Chrysostom and Women*, p. 224.

⁸⁹ Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 1 b, 23-29, SCh 13bis, p. 368, 370. In all probability, she was a member of Constantinopolitan nobility, see Mayer, *Constantinopolitan Women*, p. 279.

⁹⁰ The employed infinitive ἐπιθεῖναι (i.e. to apply) renders the external use of the medicine and implies that it belonged to the category of ἐπιθήματα, see Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII, 1 b, 29, SCh 13bis, p. 370. However, the drug was supposed to cure internal problems (Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII, 1 c, 34, SCh 13bis, p. 370; cf. note 24).

⁹¹ The medicine in question was supposed to counteract vomiting (Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII, 1 b, 25, SCh 13bis, p. 370; cf. note 39), alleviate inflammations (Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII, 1 c, 33-34, SCh 13bis, p. 370; cf. notes 38 and 43), reduce the excess of unnecessary moisture in the body (Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 1 c, 34, SCh 13bis, p. 370; the majority of *polyarchion*'s ingredients were said to display desiccative qualities, cf. note 70), have warming action (Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 1 c, 34-35, SCh 13bis, p. 370; the prevailing number of the ingredients of the drug were classified as such, cf. note 69), strengthen the stomach (Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 1 c, 35, SCh 13bis, p. 370; Galen's *De compositione medicamentorum secundum locos* [cf. note 40] and early Byzantine treatises [cf. note 47] prove that *polyarchion* was considered to be an effective drug for gastric problems), and restore appetite (Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 1 c, 35-36, SCh 13bis, p. 370; Paul of Aegina mentions *polyarchion* in his chapter on ἀνορεξία, cf. note 48).

Theophilus (who, as John suggests in his letter, was a medical doctor active in the capital) to produce some and send it to Cucusos⁹². John Chrysostom's words here seem to be adequate to surmise that both the letter to Carteria and the one to Olympias mention, in fact, the same medicine, i.e. *polyarchion*. If so, it can also be argued that the medicament was known not only to Carteria and John Chrysostom (being available in Antioch), but also to Syncletion, Olympias and Theophilus (being accessible in the capital, where, as Chrysostom's words make us conclude, it was prepared for individual users and was popular among the wealthy), while being unavailable in the place John was currently residing.

Having analysed the data on *polyarchion*, let us now proceed to the source material on John Chrysostom's health in order to find out why he needed this specific drug. We will start our discussion from the fragment found in *Dialogus de vita Joannis Chrysostomi*, by Palladius of Galatia, where we read that Chrysostom subjected himself to extreme ascetic practices in his youth, which resulted in a dramatic deterioration in his health, leading to grave gastric and kidney problems⁹³. These became so severe that he decided to abandon his self-imposed isolation and returned to the city of Antioch⁹⁴. It seems that this first-hand experience changed his mind as far as ascetic practices are concerned, which is why he preached moderation in this respect, when he already was head of the Constantinopolitan Church⁹⁵. From Palladius' narration we also learn that John Chrysostom never fully recovered from his health problems. Notably, the author writes that Chrysostom suffered from gastric disorders in his Constantinopolitan years, which must have been aggravated by his irregular eating pattern and the nature of his diet. He also experienced bouts of an anorectic tendency⁹⁶, which was either a result of his poor health or contributed to it.

⁹² Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 1 b, 37-40, SCh 13bis, p. 370. On Theophilus, see J.R. Martindale, *Prosopography of the Later Roman Empire*, v. 2, Cambridge – London – New York – New Rochelle – Melbourne – Sydney 1980, p. 1108 s.v. Theophilus 2.

⁹³ Palladius, *Dialogus de vita Joannis Chrysostomi* V 25-28, SCh 341, p. 110.

⁹⁴ Palladius, *Dialogus de vita Joannis Chrysostomi* V 28-29, SCh 341, p. 110. On this period of Chrysostom's life, for instance, see Kelly, *Golden Mouth*, p. 32-35.

⁹⁵ For instance, see Ch.L. de Wet, *The Preacher's Diet: Gluttony, Regimen, and Psycho-Somatic Health in the Thought of John Chrysostom*, in: *Revisioning John Chrysostom: New Approaches, New Perspectives*, ed. Ch.L. de Wet – W. Mayer, Critical Approaches to Early Christianity 1, Leiden – Boston 2019, p. 442-443, 447-448, 450-451.

⁹⁶ Palladius, *Dialogus de vita Joannis Chrysostomi* XII 15-25, SCh 341, p. 230, 232.

John Chrysostom's exile only worsened the situation⁹⁷. From his correspondence to Olympias we learn that he would regularly suffer from stomach disorders accompanied by recurring vomiting, headaches, loss of appetite and chronic insomnia in this period due to the adverse climate (especially the constant cold in winter)⁹⁸. He tried to ward off the recurring illness by insulating himself from the cold and resorting to the available medication⁹⁹. Although we may suppose that he had no issue turning to medical doctors for help, he writes that those available were not competent enough¹⁰⁰. Even though, as pointed out by Ceran, there was a garrison in Cucusos, those military doctors present there, in all probability, would only have been experts in surgical procedures¹⁰¹, which led to John's comments that his place of exile lacked doctors¹⁰². As a result, he had no other way but rely on the kindness of distant benefactors for effective drugs.

Conclusions

It would be an exaggeration to conclude that John Chrysostom's mentions of *polyarchion* were a crucial element of his specific theological teaching. If it were the case, he would have named the medicine in his homilies and commentaries on the scriptures instead of his letters. Consequently, one should classify his allusions to the drug as an element of his autobiographical elucidations, belonging exclusively to the sphere

⁹⁷ On Chrysostom's health during his exile, for instance, see Neureiter, *Health and Healing*, p. 269-270.

⁹⁸ Joannes Chrysostomus, *Epistulae ad Olympiadem* XII 1 a, 7-20, SCh 13bis, p. 316. Analogous symptoms, see Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 1 a, 1-1 c, 40, SCh 13bis, p. 368, 370. More on Chrysostom's health in winter, see Joannes Chrysostomus, *Epistulae ad Olympiadem* XV 1 d, 35-37, SCh 13bis, p. 358; XVI 1 e, 67-68, SCh 13bis, p. 366.

⁹⁹ For instance, see Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 1 b, 23-29, SCh 13bis, p. 368, 370.

¹⁰⁰ Joannes Chrysostomus, *Epistulae ad Olympiadem* XVII 4 b, 23, SCh 13bis, p. 384. There is however one mention about the excellent doctors who examined him (though being unable to cure him from his chronic illness), see Joannes Chrysostomus, *Epistulae ad Olympiadem* XV 1 d, 38, SCh 13bis, p. 358.

¹⁰¹ Ceran, *Jan Chryzostom*, p. 13-14.

¹⁰² For instance, see Joannes Chrysostomus, *Epistulae ad Chalcidiam* 105, PG 52, 664; Joannes Chrysostomus, *Epistulae ad Theodotum, Nicolaum, Choeream, presbyteros et monachos* 146, PG 52, 698.

of his private affairs. Nonetheless, the case well illustrates his attitude to the role of individual wellbeing in human existence expressed in his theology. Notably, he teaches that health is not a negligible aspect of human life and should be sought for and taken care of. That is why the faithful ought to resort to doctors' advice, take prescribed drugs, and be ready to subject themselves to medical procedures no matter how bitter or unpleasant the means are¹⁰³. Chrysostom explains that it is advisable because the body serves the soul as an instrument indispensable to achieve individual sanctity¹⁰⁴.

In the light of the presented materials it can be seen that John Chrysostom complained of a wide range of health problems, out of which those connected with the alimentary tract were recurring and would have been the most pressing for the patient. It is also clearly visible that the symptoms would have been within the scope of *polyarchion*'s action. The above data illustrates faithfully a long history of a chronic illness and the therapy employed to attempt to cure it. Unfortunately, the treatment was not effective enough to restore the patient to full health.

Given the fact that Galen constructed his two full formulas on the basis of ingredients from Asclepiades' first prescription, and the fact that Alexander of Tralles, the author of the *Metrodora* collection and Paul of Aegina definitely quote the ingredients from the same formula (with Alexander's version lacking bdellium gum and Nepal cardamom¹⁰⁵, while melilot¹⁰⁶ being absent from Paul's formula¹⁰⁷, and *Metrodora* omitting bdellium gum, Nepal cardamom, terebinth resin, melilot, true cardamom, nard, saffron, myrrh, and frankincense), we can surmise that it was Asclepiades' first recipe that was considered to be the most effective up until the 7th c. AD. As a result, it is likely that John Chrysostom applied the medicine in its version we know from Asclepiades' writings¹⁰⁸.

For a medical historian, the material is of great importance, since it gives us a unique literary insight into the popularity of a named drug in

¹⁰³ Joannes Chrysostomus, *De Lazaro homiliae* VI, 3, PG 48, 1031.

¹⁰⁴ Joannes Chrysostomus, *In epistulam ad Titum homiliae* I, 4, PG 62, 670.

¹⁰⁵ Alexander Trallianus, *Therapeutica* VII 8, p. 301.

¹⁰⁶ Paulus Aegineta, *Epitome* VII 18, 4 (2, 369, 19-24, CMG IX 2).

¹⁰⁷ The specified differences prove that both, Alexander and Paul, based their knowledge on a common source, i.e. Galen, and excludes the possibility of Paul's using Alexander's work.

¹⁰⁸ M. Kokoszko – Z. Rzeźnicka – K. Jagusiak – K. Tadajczyk, *Polyarchion (πολύαρχιον) w medycynie antyku i Bizancjum*, "Farmacja Polska" 79/12 (2023) p. 760.

early-Byzantium by referencing an actual medical case, and one not described by a member of the medical profession. Accordingly, it enables us to verify the extant medical data.

Although we cannot quantify access to *polyarchion* for the average patient, the presented information allows us to suggest that it was available exclusively to the well-off and privileged, and possible to purchase only in the urban centres like Antioch or Constantinople, once again teaching us that ancient and Byzantine medicaments differed in the degree of their availability, just as drugs do today.

A medicament like *polyarchion* was made in quantities that resulted from an individual's needs, either by those who prescribed it (for example Comes Theophilus) or by the patients themselves (like Carteria). Thus, it was not available instantly, even in places where the wealthy abounded.

It is of the utmost importance that Chrysostom testifies to his actual use of *polyarchion* from a patient's point of view and credits it with high effectiveness. His testimony clearly shows that his use of the drug was not an isolated case but there was a whole group of other patients (whom we can tell by name) who were well familiar with the medicine. The background concerning the medicament's production such as the target group of its buyers, quantities in which it was made and even names of its producers is yet another argument for it being part of the medicine market at the end of the 4th and the beginning of the 5th c. AD. Given the above data on *polyarchion*, one can surmise that there is every likelihood that at least some mentions of other named drugs (and possibly also of other medicines and medical procedures) coming up in Byzantine medical treatises are not a mere repetition of old literary knowledge no longer used in medical practice, but rather a careful selection on the grounds of practical application. As a result, our study confirms current tendencies in the research into the history of Byzantine medicine which interprets it as yet another stage of development and progress of the practical knowledge¹⁰⁹.

¹⁰⁹ For instance, see Ph. van der Eijk – M. Geller – L. Lehmhaus – M. Martelli – Ch. Salazar, *Canons, Authorities and Medical Practice in the Greek Medical Encyclopaedias of Late Antiquity and in the Talmud*, in: *Wissen in Bewegung: Institution – Iteration – Transfer*, ed. E. Cancik-Kirschbaum – A. Traninger, *Episteme in Bewegung: Beiträge zu einer transdisziplinären Wissensgeschichte 1*, Wiesbaden 2015, p. 196-204, 213-217; Ch. Salazar, *Continuity and Innovation in Paul of Aegina's Chapters on Headaches and Migraines*, in: *Collecting Recipes: Byzantine and Jewish Pharmacology in Dialogue*, ed. L. Lehmhaus – M. Martelli, *Science, Technology, and Medicine in Ancient Cultures 4*, Berlin – Boston 2017, p. 177-184.

Last but not least, John Chrysostom's story also helps gain a better understanding of accessibility to medical care in terms of patients' social position and their geographical location within the Empire, with the wealthy and the influential of the 5th c. AD who lived in major cities, standing a better chance of having access to medical doctors. Once, just as John was, they were relocated to the far-off province they would have become almost as vulnerable to health issues as the poor.

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