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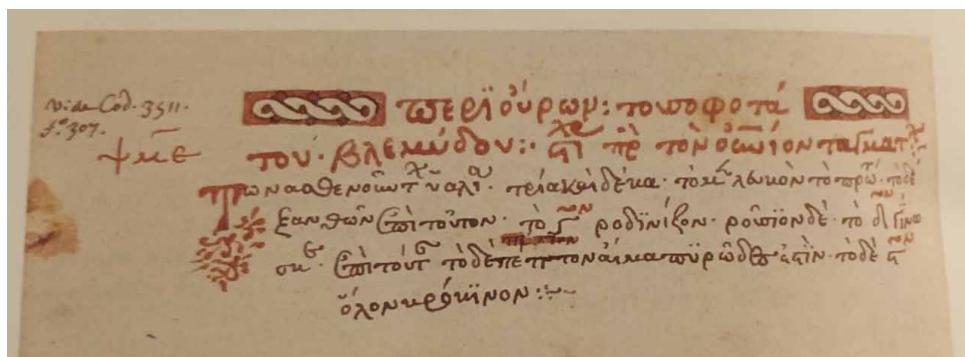
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Two Byzantine Medical Texts in Verse Translated into English: Diagnosis and Treatment of Disease

Petros Bouras-Vallianatos¹



Bibliothèque nationale de France, Parisinus gr. 2315, f. 271v

Abstract

This article aims to provide an English translation of two particularly popular Byzantine medical texts in verse, focusing on diagnosis by the examination of venesected blood and urine. Furthermore, these texts provide valuable therapeutic advice, especially for the use of drugs. They are composed in the form of liturgical hymns, combining mnemonic techniques. These hymns survive in various recensions and are often ascribed either to Nikephoros Blemmydes or Maximos Planoudes, both late Byzantine intellectuals and renowned teachers of advanced educational programs in Nicaea and Constantinople, respectively.

Key Words: *Byzantine uroscopy, venesection, juleps, parahymnography, Nikephoros Blemmydes, Maximos Planoudes*

There is a long tradition of medical texts written in verse since antiquity. Ancient and medieval education was based on a learning heart, and students could more easily recall material presented in verse than lengthy treatises in prose. Among the most well-known medical works in verse are the two didactic poems in hexameter by Nicander of Colophon (fl. ca. 130 BC): the *Theriaka* and the *Alexipharmaka*.¹ The former focuses on various venomous animals (insects, snakes, etc), and the latter

deals with poisons and antidotes.² Several examples may be pointed out from the Middle Ages in various languages and traditions.³ In Byzantium, one should mention the long didactic poem *On Medicine* in iambic dodecasyllables by Michael Psellos (1018–ca. 1076).⁴ Works containing elementary information on medicine could be easily memorised and used by students of medicine, as well as serving to instruct members of the Byzantine intellectual elite interested in medicine.⁵

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Judging from the number of surviving manuscripts (see below), the most popular group of Byzantine medical texts written in verse is the stichera and the ecclesiastical canon on diagnosis and treatment of disease by the examination of venesected blood and urine. Both are composed in the form of liturgical poetry and belong to the “genre” of parahymnography. There are also examples of such didactic texts on other subjects, including orthography, grammar, syntax, mythology, geography, mineralogy, and meteorology.⁶

Dimitrios Skrekas and I are currently preparing a comprehensive interpretive study of these texts along with the first critical edition. The stichera and the canon survive in at least 38 and 43 manuscripts respectively, with the earliest ones dating to the fourteenth century. There are also various recensions of these texts, including several later paraphrases. One recension is ascribed to Nikephoros Blemmydes (1197/8–ca.1269), a Byzantine intellectual who wrote on a variety of subjects from theology and philosophy and had also studied medicine. Another is found in manuscripts under the name of the late thirteenth-century Byzantine polymath Maximos Planoudes (ca.1205–ca.1305). Interestingly, both Blemmydes and Planoudes developed advanced educational programs in Nicaea and Constantinople, respectively.

The subject of the first text, involving a diagnosis through the examination of venesected blood (especially its colour, consistency, and smell), is exceptionally rare and I am not familiar with any other significant text of this kind in the Byzantine tradition. Uroscopy, the topic of the second and longer text, underwent significant development in the Middle Ages and became the single most important diagnostic and prognostic technique in Byzantium.⁷ The text is very interesting from both a diagnostic and a therapeutic point of view.⁸ The diagnosis is based on various urinary characteristics, such as colour, the place of particles in the urine vial, and smell. Each characteristic or a combination of them is connected with a certain clinical condition. The diagnosis is followed by therapeutic advice, including dietetics, pharmacology, and sometimes venesection and bathing. There is also a strong prognostic element, at times predicting death within a few weeks or months. The didactic nature of the text is often emphasised by the use of specific terms, such as *mathe*, the second-person aorist imperative of the verb *manthanō*. Lastly, there are a few invocations to the Christian God.

Additional notes on the pharmacological content of the texts in question will be included. The texts contain details about simple and composite drugs in

various pharmaceutical dosage forms, including plasters, clysters, and potions. Among the diverse items of *materia medica*, there are references to local Mediterranean vegetal ingredients, such as anise, barley, celery, chamomile, cucumber, endive, fennel, lettuce, lovage, lupine, maidenhair, mastic, nut grass, olive pits, pelitory, raisins, rose, and savory. The texts also attest to the wide circulation of oriental *materia medica*, including substances from Asia and the Far East, such as caraway, cinnamon, clove, cumin, galangal, ginger, long pepper, nutmeg, and spikenard. Additionally, a few animal ingredients and products, including egg white, octopus, and the head of a sheep with wool are mentioned. The only mineral substance mentioned in the texts is salt. Among the various compound drugs, there are three references to rosewater and another to *drosaton*, a sort of cold aromatic water with sugar. Interestingly, recent research has suggested the anti-microbial activity of rosebud extracts.⁹ Furthermore, the use of sugar-based potions, such as juleps, is often recommended in the text. It is worth noting that sugar-based potions were introduced from the Islamicate world to Byzantium and became extremely popular throughout the entire Mediterranean, especially from the twelfth century onwards.¹⁰

The canon has been published twice by Julius Ideler in 1842 and Aristotelis Kousis in 1944.¹¹ Kousis also includes an edition of the stichera. I reprint here the text of Kousis’s edition with tacit modifications. An earlier English translation of the canon on urines was published by Athanasios Diamandopoulos in *Musical Uroscopy*, 1996.¹² Here, I present a new English translation of both texts, which I hope will be useful to historians of medicine and also to students of pre-modern medical history, a subject that has received renewed interest during the last two decades. Please note that where an implied word (or words) needs to be made explicit for reasons of clarity, it is supplied within square brackets.

I would like to note that to the best of my knowledge, the two texts have been performed three times in recent times. The first two modern performances were organised by Athanasios Diamandopoulos. The canon on urines was first chanted by the monks of The Holy Transfiguration Monastery at Nafpaktos, Greece, in 1998. It was then performed in the form of an oratorio along with excerpts from Michael Psellos’s *On Medicine* by the Polyphonic Choir of Patras in Delphi on 15 February 2001.¹³ The third one was organised by Petros Bouras-Vallianatos at the Wellcome Collection in London on 25 May 2017. Both the stichera on ven-

esected blood and the canon on urines were chanted by two head chanters (Dimitrios Skrekas and Athanasios Charalampopoulos) and a choir of three chanters. A

recording of the performance featured also in the show 'Early Music Show' of BBC Radio 3, episode: 'Why Music? The Key to Memory', on 15 October 2017.¹⁴

Text and English Translation

Διάγνωσις τοῦ σοφωτάτου καὶ λογιωτάτου τοῦ Βλεμμύδου διὰ στιχηρῶν καὶ κανόνος.
Diagnosis by the wisest and most erudite Blemmydes in the form of stichera and canon.

Στιχηρὰ εἰς τὰς κρίσεις τῶν αἰμάτων τῆς φλεβοτομίας τῶν ἀσθενῶν.
Stichera on distinguishing between the [different kinds of] venesected blood of patients.

Ὕχος β'. ὅτε ἐκ τοῦ ξύλου.
Tone 2. When he took Thee off the Wood.

Μάθε καὶ τὰ αἷματα λοιπὸν τῆς φλεβοτομίας ὄπόσα καὶ τὶ σημαίνουσι· δίχα τοῦ ἰχῶρος γάρ τὸ αἷμα μέλαν ῥύνει, ὥριγός ἔχει· ἰχῶρα δὲ ποιήσειν ἐκεῖνο κάλλιστον· ἐλκῶδες δὲ τὴν νόσον λύσιν δηλοῖ, οὕσης ἡ μελλούσης· εἰ δ' ὅλον βένετον καὶ ὅλως οὐχ αἷμα, χρόνου ἡ ἔξαμηνιαίου βίωσις.

Αἷμα καταπράσινον φανὲν ἡ μετὰ τὴν πέμπτην ἐκδήλως μηνύει θάνατον ἡ μεθ' ἡμέραν ἔβδομον· εἰ δ' ὀλοκίτρινον ἐπὶ ὥχρα παρόμοιον σχιστῇ ἀρσενίκῃ, θάνατον μαντεύεται· ὡς πίσσα ρέυσαν δ' αὐτό, τοῦτο ἐκτικὸν προμηνύει ἔλκος· εἰ δὲ λευκὸν ἡ ἐκρεύσει ἡ βιορβωδες ἀπὸ σήψεως.

Τοῦτο δ' ὡς κογχύλη ἐκρυὲν θάνατον σημαίνει προδήλως· εἰ δ' ἔλκος, ἡμισυ καὶ ἡμισυ αἷμα δέ, συνάμα δὲ ρέυσει καλόν· ὑγιαίνει ταχέως γάρ· εἰ λάκκον δὲ μέσον ἔχει, φέρει θάνατον· εἰ δὲ δυσώδες παχύ, ἔχον ὀστρακώδη λωρίαν, χρόνον ἔξαμηνον ζήσας, θνήσκει ἔξ οὗπερ τοῦτο ἔρευσεν.

Χρῶμα φοινικοῦν τὸ ἐσχηκός αἷμα, ἀφοβίαν μὲν ἔχει, μακρονοσίαν δέ· ἔμαθες τὰ αἷματα ὡς ἐν συντόμῳ· λοιπὸν ἀγωνίζουν καὶ σπούδαζε καὶ φίλει τοὺς πόνους, δίωξον τὸν ὑπνον τε καὶ ῥάθυμιαν αἰσχράν· σέβου τὸν Θεόν, τρέμε κρίσιν· βίωσον ἀμέμπτως· μιμήσκου τούτων καὶ ἔμοι τοῦ ὑπομνήσαντος.

Learn too how many kinds of venesected blood there are and what they indicate. For if black blood flows without serum, [the patient] will shiver. If this [i.e. the black blood] produces serum, it is of the best quality. If it is like a sore, it shows remission of the disease, whether now or in the future. If it [i.e. the blood] is entirely blue without any redness whatsoever, life expectancy is six months or a year. If intensely green blood appears either after the fifth or the seventh day [of the disease], it clearly reveals death. If it is completely yellow like orpiment, it foretells death. If it flows like pitch, then it predicts a consumptive sore. If white or murky blood flows, it is the result of putrefaction.

If what flowed is like purple dye [in colour], it certainly denotes death. If it is a sore, the blood will flow in two equal parts. If it flows all together, it is a good sign; for [the patient] will recover quickly. If there is a hole in the middle, it will cause death. If it is thick, has an unpleasant smell and is like a striped shell, [the patient] from whom such blood flowed will live for six months but [then] die. The blood having a reddish-purple colour is not a cause for alarm, but denotes a lingering disease. You have learned the kinds of blood in brief. Thus, you should exert yourself, be earnest about your study, keen to work hard, avoid sleep and shameful laziness. Worship God, fear judgment, and live without sinning. Remember these things and me who reminded you of them.

Στιχηρὰ εἰς τὰ κρίσεις τῶν ύελίων τῶν δεκατριῶν.
Stichera on distinguishing between the thirteen kinds of urine vial [according to colour].

Ὕχος α'. τῶν οὐρανίων ταγμάτων τὸ ἀγαλλίαμα.
Tone 1. Thou art the joy of the heavenly orders.

Τῶν ἀσθενῶν ύελία μάθε τρισκαίδεκα· τὸ μὲν λευκὸν τὸ πρῶτον· τὸ ξανθὸν δ' ἐπὶ τούτῳ· τὸ τρίτον ρόδινίζον· ρούσιον δὲ τὸ τέταρτον γίνωσκε· αἷμα καθάπερ πυρωδες πέμπτον ἔστι· τὸ δὲ ἕκτον ὅλον κρόκινον.

Learn the thirteen kinds of patients' urine vials [according to colour]. The white comes first and the yellow follows. You should know that the third one is rose-coloured and the fourth one is reddish. The blood-like flame-coloured urine is the fifth. The sixth one is completely saffron in colour.

Μετὰ δὲ τοῦτο ώς κίτρον ἴσθι τὸ ἔβδομον· τὸ ἐφεξῆς δὲ μέλαν καὶ τὸ ἔνατον ἄσπρον, ὕσπερ καὶ τὸ ὄνδωρ· δέκατον δὲ σὺν τρυγίᾳ ὑπόλευκον· τεθολωμένον δὲ ἔστιν ὄλον αὐτό, γάρος ὕσπερ τὸ ἐνδέκατον.

Τοῦ δωδεκάτου τὸ εἶδος μόνον οὐ πέφυκεν· οὐθὲρόν οὐδ' αὐθις καθαρόν, ἀλλ' ὁρᾶται μίγμα πεφυρμένον βοῦριός ἐστι· τρισκαιδέκατον δύσωχρον· ἀλλὰ πονήσας ἐνταῦθα, μάθε λοιπὸν τουτωνὶ καὶ τὴν διάγνωσιν.

You should know that after that is the seventh one, which is like citron in colour. Next is the black one and the ninth one is colourless like water. The tenth one is off-white, like the colour of wine sediment. The one which is entirely cloudy, resembling brine, is the eleventh.

The twelfth is not of one sort alone, nor being turbid, but not clear either; it is like sludge and looks like a stirred mixture. The thirteenth is very pale in colour. Work hard and learn how to diagnose these different kinds of urine vials.

‘Ο κανών.

Canon.

‘Ωδὴ α’.

‘Ηχος β’· ἐν βυθῷ κατέστρωσε ποτέ, τὴν Φαραωνίτιδα.

Ode 1.

Tone 2. His overwhelming might once laid low in the deep all Pharaoh's host.

Τὸ λευκὸν ἐκ ψύξεως ἐστὶ καὶ νεφροαλγήσεως· ιατρεύ-έσθω δ' ὁ πάσχων κλυστήρια· δραστικὰ τὰ ἔχοντα μαραθρόρριζα καὶ θρυμβόξυλα· τοῦτον δὲ ἀντί γε τοῦ νάρδου, ἀλειψον καλὸν χαμαιμηλέλαιον·

The white is the outcome of frigidity and kidney pain. The sufferer should be cured by the use of clysters; the ones made of fennel root and savory are the most effective. Instead of applying spikenard, you can anoint [the patient] with this nice chamomile oil.

If you see a yellow cloud suspended in the middle of the vial, be well aware that the sick person's health is going to be fully restored. If the patient has a nosebleed, this is definitely a shorthand sign of cure.

If there is no nosebleed, make a julep produced from naked barley. Strain the juice of boiled jujubes and sandalwood, add sugar and boil again, and go and give it to the sick.

After these and when with God's help, my friend, you see something like a shell at the bottom of the patient's vial, immediately venesect and [the patient] will look radiant with good health soon.

‘Ωδὴ γ’· ἐν πέτρᾳ με τῆς πίστεως.

Ode 3. On the rock of the faith.

Τὸ τρίτον ύελίον δὲ ῥοδινίζον· ξανθῆς ἀπὸ χολῆς γὰρ συνέβη τοῦτο· καὶ πάνυ γε ὁ πάσχων κατεθερμάνθη· εἰ μαῦρον δὲ νέφος μέσον κρέμαται, ἀληθείᾳ γίνωσκε τοῦτο θανάσιμον.

The third kind of urine vial is rose-coloured, caused by yellow bile, and the sufferer becomes overheated. If a black cloud is suspended in the middle, know that this is really a deadly sign.

Εἰ μέσον δὲ οὐκ ἔδης τὸ μαῦρον νέφος κρεμάμενον, ἀλλ' ἄνω τοῦ ύελίου κέκτηται καὶ τίπα ώς ἐλαιώδη, χολὴ ἔξεκαυσεν τὸν ἀσθενήσαντα· καὶ ψυχρὰ ώς δύναμις τοῦτῳ προσέφερε.

If you do not see the black cloud suspended in the middle, but there is an oily film in the upper part of the vial, the bile has overheated the patient; to strengthen him, offer cooling agents.

Ψυχροῖς γάρ εὶ μὴ σβέσεις χολὴν ἐν τάχει, κοιλίας κρατηθείσης τοῦ ἀσθενοῦντος, φρενῖτις ἐπιγίνεται τῷ ἀθλίῳ· διὸ καὶ πότισον ὡς δοκιμώτατον ἀναλόγως, φίλτατε, τὸ ὀξυφοίνικον.

Κατάπλασμα ποιήσας φῷοῦ μετ' ἄσπρον· ψυλλίῳ τε συνάμα καὶ κριθαλεύρῳ· ἐπίθες τῷ νοσοῦντι παρὰ τὸ ἥπαρ· λειώσας σπέρματα μετὰ σαχάρεως ἀγγουρίων κάμνοντι τοῦτο πότισον.

Πινέτω δὲ κριθόχυλον ἐν τῇ δίψῃ ὁμοῦ μετ' ὀξυμήλων καὶ βλασταρίων· ψυχρὸν δὲ καὶ κλυστήριον εἰσδεχέσθω σὺν κριθαλεύρῳ τε καὶ ιοσαχάριτι· εἰ δροσάτον ἔχεις, δὸς τοῦτο κάλλιον.

For, if you do not suppress the bile quickly using cold agents, and it seizes the stomach of the patient, the poor man will be attacked by phrenitis; on account of this, my dear fellow, let [the patient] drink [pulp of] tamarind fruit accordingly, because it is excellent. Make a poultice with egg white and fleawort together with barley flour; apply this on the patient's liver; dissolve cucumber seeds in sugar and give it to the sufferer to drink.

Let [the patient] drink barley water when thirsty together with sour apples and vine tendrils; let [the patient] receive a cold clyster made of barley flour and a mixture of violet with sugar; if you have *drosaton* [i.e. rose syrup], give it to [the patient]; it is very good.

Ωδὴ δ'· ἐλήλυθας ἐκ παρθένου.

Ode 4. From a Virgin you came.

Τὸ τέταρτον, τὸ καὶ ρούσιον νέφος ἐνέσχηκεν ἐν αὐτῷ κρεμάμενον, τὴν λεγομένην ὑπόστασιν, ἵσθι ὡς κεκράτηται γαστὴρ τοῦ πάσχοντος, ὅθεν καὶ ἡσθένησεν.

Κατάπλασμα συσκευάσας τῷ ἄνω παρόμοιον τῷ ἀνθρώπῳ πρόσφερε καὶ ποτιζέσθω γλυκύτερον· ἐπειτα κλυστῆρι ἰατρευέσθω μηδὲ ὅλως ἄλας ἔχοντι.

Κατάπυρρον ὡς τὸ αἷμα τὸ πέμπτον, ὡς ἔφημεν· τῶν δὲ διττῶν στοιχείων γάρ ἀναμιχθέντων, τοῦ αἵματος μετὰ ξανθίζούσης δὲ χολῆς σκοτίζουσιν ὅλον τὸν ἔγκεφαλον.

Σκοτίζουσι μετὰ τούτου καὶ κόρας καὶ φρόνησιν, καὶ λαλεῖ παράφορα καὶ ψηλαφεῖ τὰ ἴματα· ἀγρίως ὁ ἀνθρωπὸς ὁρᾶ, ξηράς τε ἔχει τὰς ρίνας ὡς οὐδέποτε.

Καὶ καίεται τοῦ τοιούτου ἡ γλῶσσα ὡς κλίβανον καὶ κοιμᾶται κάτοχα, παρεφθαρμένος ὡς τέλεον· τρίζει τοὺς ὀδόντας τε διϋπνισθείς, βλοσυρὰς δὲ κόρας δείκνυσιν.

If the fourth one has a red cloud, the so-called sediment, suspended in it, you should know that the stomach of the sufferer has been overpowered, and therefore he became ill.

Prepare a poultice similar to the one above, give it to the man and let him drink something sweeter; then, he can be cured by means of a clyster with absolutely no salt in it.

The fifth one is the most flame-coloured like blood, as we said; for, when the two elements are mixed together, i.e. blood and yellow bile, they cloud the entire brain.

As well as [the brain], they also cloud the pupils [of the eye] and the intellect and the person speaks irrationally and he paws at his clothes; he looks angrily and his nostrils are dry as never before.

His tongue is as hot as a potter's oven and he suffers from cataleptic sleep; completely deranged like a corpse, he grinds his teeth and when awakened from sleep his pupils seem to glower.

Ωδὴ ε'· ὁ φωτισμός, τῶν ἐν σκότει κειμένων.

Ode 5. The enlightenment of those in darkness.

Οἶους λοιπὸν ποτήριον ἐπάρας ἥμισυ μόνον καὶ τὸν τετραγγουρόζωμον, συμφύτῳ σὺν αμάραντο καὶ ζωμῷ κολοκύνθῃ· ἀμα τούτῳ καὶ ροδοστάγματος ὅσον ποτηρίου ἐνὸς εἰς ποσότητα.

Ἄσπρα φῶν μετὰ τούτων ἀπάντων σύμμιξον τρία· ἐπειτα μανδήλια πέντε ἔχων, ταῦτα ἄλασσον καὶ συσφίγγων ὀλίγον· οὕτω κατάπλασσε πάντα βεβρεγμένα καλῶς ἐν τῷ ἥπατι.

So take only half a glass of vinegar and the juice of a large cucumber, together with comfrey, amaranth, and the juice of colocynth and add enough rose water to fill a glass.

Mix three egg whites with all these, then get five handkerchiefs, pulverize and squeeze them lightly, and in this way apply well-soaked plasters to the liver.

Τίθει ταύτὸν ἐφ' ἐκάστην ἡμέραν λοιπὸν τρισάκις ἐπὶ τῇ πρωΐᾳ μέσης ἡμέρας καὶ τῇ ἑσπέρᾳ· ὀξυφοινίκων εἴτα πόσιν δίδου τῷ ἀσθενήσαντι, κνῆκον καὶ σάχαρον πρωΐαν νηστεύοντι.

Βρέχε δ' αὐτῷ ριδοστάγματι πρῶτον καὶ τότε δίδου καὶ τὰς θριδακίνας· δίδου εἰς βρῶσιν τῷ ἀσθενοῦντι καὶ ιντίβιον· τοῦτο ἄμα δίδου μετὰ σαχάρεως τρώγειν καὶ τῇ νεύσει Θεοῦ ιαθήσεται.

Ωδὴ ζ' · ἐν ἀβύσσῳ πταισμάτων κυκλούμενος.

Ode 6. Surrounded by a depth of offences.

Τὸ δὲ ἔκτον ώς ἔφημεν κρόκινον νέφος, ἐὰν ἔχῃ δὲ μαῦρον κρεμάμενον, ώς ἀληθῶς θανάσιμον, εἰ μὴ ἄλλο τι πάθος προσγέγονεν.

Ἐκ στομάχου καὶ γὰρ ἂν ἐγένετο, τούτου δυσπεπτήσαντος, δευτεροτρίτωσον ὑέλια, ἄνθρωπε, καὶ τριῶν τὴν ἰδέαν κατάμαθε.

Καὶ ἂν ὥσι τὰ τρία παρόμοια, θάνατον σημαίνουσιν· εἰ δ' ἀλλαγήσονται πρὸς τὸ λευκὸν κρινόμενον ἢ ξανθόν, ὑγιαίνει ὁ ἄρρωστος.

Μαρουλλόσπορον οὖν καὶ χαμαίμηλα καὶ βασιλικόσπορον σὺν κριθαλεύρῳ τε καὶ τὸν ζωμὸν ἀνάμιξον τὸν τοῦ σεύτλου καὶ τίθει ἐν ἥπατι.

Τὸ τοιοῦτον ώς ἔμπλαστρον τίθει δὲ καὶ ἐπὶ τὸ μέτωπον τοῦ ἀσθενήσαντος· καὶ ιατρείαν ποίησον τῷ ἄνθρωπῳ· καὶ δώης τὴν ἴασιν.

Administer this three times a day, in the morning, afternoon and evening; give the patient, who has fasted since morning, [pulp of] tamarind fruit, safflower, and sugar to drink.

First, sprinkle him with rose water and then give him lettuce to eat as well; give the patient endive to eat and together with this [i.e. endive] give him sugar to eat, and – God willing – he will be cured.

Ωδὴ ζ' · ἀντίθεον πρόσταγμα, παρανομοῦντος τυράννου.

Ode 7. The godless order of a lawless tyrant.

Τὸ ἔβδομον κίτρινον ώς θέα κίτρου· ἐὰν ἔχῃ δὲ κάτωθεν καὶ νέφος ώς σεμίδαλιν κριθέν, καταμάνθανε τὸ ὑελίον αὐτό· τοῦτον οὖν διαίτησον λεπτῶς καὶ ιαθείη, Κυρίου θέλοντος.

Τὸ ὅγδοον μέλαν δὲ ώς ἐκ μελαίνης χολῆς ἦν ἐνίσχυσε· χολὴ γὰρ μεθ' αἴματος στοιχεῖα δ' ἀνέμιξεν· καὶ κινδυνεύειν ποιεῖ πνεύμονα καὶ ἥπαρ καὶ χολὴν· καὶ συσκοτίζει κακῶς τὸν ἄνθρωπον.

Σταφίδας καὶ ζίνζιφα συναποβράσας ζουλάπιον ποίησον καὶ πότιζε τὸν πάσχοντα· καὶ ἄλλο ζουλάπιον μετὰ σελίνου ρίζῶν, λουπιναροκίχωρα, ἐν αἷς καὶ ἀδιάντων τὰς ρίζας ἔνωσον.

Ἐν τούτῳ ἐπίβαλε καὶ λίτραν μίαν σάχαρον καὶ πότιζε ἡμέραν ἐφ' ἐκάστην τε τὴν μίαν ἐκ πρώτου γε καὶ τοῦ δευτέρου ἔξῆς· ἀγριαγγούρεας τὸν ζωμὸν καὶ ροβαλεύρου αὐτῷ κατάπλασσε.

As we said, the sixth one is like a saffron cloud. If there is a black suspension, that is really a deadly sign; if not, some other disease has already taken hold.

For if it originates in the stomach which suffers from indigestion, collect urine two and three times, my friend, and learn what the three of them mean.

And if the three [vials] are similar, it means death; if they change to white or yellow, then the patient will get better.

So mix the seed of lettuce, chamomile and basil seed together with barley flour and stir in beetroot juice and apply to the liver.

Apply this as a form of plaster on the forehead of the patient as well, since this will treat the patient and grant him his health.

The seventh is yellowish resembling the colour of citron; if it has a cloud in the lower part, which is judged similar to the finest wheaten flour, pay attention to this vial. So ask him to follow an attenuating diet, God willing, he will be cured.

The eighth is black due to black bile which is dominant; for the bile was mixed up with blood, posing a risk to the lungs, liver, and the gallbladder; and it makes the patient unpleasantly dizzy.

Boiling together raisins and jujubes, make a julep and give it to the sufferer; and make another julep with celery roots, lupine and chicory, to which you should add the roots of the maidenhair.

To this add one litre of sugar and give it every other day; the first day you should give the first one and then the second and so on; and then apply the juice of wild cucumber and flour of bitter vetch as a plaster.

Ωδὴ η΄. Τὸν ἐν καμίνῳ τοῦ πυρός.

Ode 8. The God who came down into the furnace.

Ωσπερ τὸ ὕδωρ καθαρὸν τὸ δὲ ἔνατον· ἄν γοῦν ἐπάνω ὥσει ἔλαιον ἔχῃ, εἰς δὲ τὸν πάτον αὐτοῦ οὐκ ἄνω οὐ κάτω ὑπόστασιν, ἡπαρ τοῦ νοσοῦντος καὶ στόμαχος ὁ πάσχων.

Ἄπο ψυχρότητος αὐτῷ ὑπεισῆλθε γὰρ ἡ ἀρρωστία καὶ ἡ τόνησε φύσις· καὶ οὐ χωνεύει καλῶς καὶ μένει ἀνόρεκτος, βλέπει δὲ πρὸς ὑδρωπικίαν τὴν κακόσχολον νόσον.

Τῷ γοῦν στομάχῳ ἀλοιφὰς καὶ ἐμπλάστρους τὰς θερμὰς αὐτῷ ἐντίθει· καὶ μαστίχιον ἔνδον μετὰ λαδάνου ἐνθεὶς τὰ σπλάγχνα, τὸ ἡπαρ καὶ τὸν στόμαχον, ἀλειψον ἐλαίῳ πηγάνου, χαμαιμήλων.

Ξυλοζιγγίβερ, γαλαγγάν, καρυόφυλλον, κύμινον, καρναβάδιν καὶ μακροπέπερι, στάχος σὺν γλυκανίσῳ λαβών, πυρέθρῳ, ἀκόρῳ καὶ σπέρματα σεληνοανήθων μετὰ μοσχοκαρύδων.

Λυβιστικόν τε σὺν αὐτοῖς καὶ τὴν κύπερον ὁμοῦ Ἀλεξανδρείας εἰς ἴγδιον συντρίψας καὶ κοσκινίσας καλῶς, σάχαρ τρεῖς λίτρας ἐπίβαλλον, κύλικας δὲ δύο ριδόσταγμα συνάμα.

Χύτρᾳ καινῇ ταῦτα βαλῶν καὶ ποτήριον ἐκ μέλιτος ἔψει καὶ πηχθέντα ἐκεῖθεν συναναμίξας καλῶς τὸν τούτου κατάπλασσε στόμαχον, ἀλλὰ καὶ τὸ ἡπαρ πρωΐας καὶ ἐσπέρας.

Σύχνασον τοῦτον εἰς λουτρὸν καὶ τὸν ἄκρατον μὴ ὕδατι μιγνύων καὶ τῇ πόσει πινέτω· ὁ ἀρρωστος καὶ ἀπαλλαγῇ τῆς κατεχούσης νόσου.

The ninth is clear like water; if it has anything like oil on top, without any sediment either at the upper or the lower part of its [i.e. the urine vial's] bottom section, then it is the liver and the stomach of the patient that are suffering.

Since the disease came upon him due to coldness and [the patient's] nature is weakened, does not digest well and has lost his appetite, [then] he is inclined to the mischievous disease, called dropsy.

So apply ointments and warm plasters to the stomach; having added to them mastic gum and ladanum anoint the organs, i.e. the liver and the stomach, with oil made of rue and chamomile.

Take ginger root, galangal, clove, cumin, caraway, long pepper, spikenard, anise, pellitory, sweet flag, seeds of celery and dill seeds, and nutmeg.

Add lovage to these and nut grass and pulverise in a bowl and sieve well; add three litres of sugar together with two cups of rose water.

And put these in an empty pot and boil them with a glass of honey, and once they have thickened and blended by you, apply this as a plaster to the patient's stomach and the liver the morning and evening.

Urge him to take frequent baths and do not mix the wine with water, and if the patient drinks that, he will be freed from the disease that attacked him.

Ωδὴ θ΄· ἀνάρχου γεννήτορος, Υἱὸς Θεὸς καὶ Κύριος.

Ode 9. The Son of the Father without beginning.

Τὸ δέκατον πέφυκε λευκὸν θολὸν παρόμοιον ἀειδάρου τῷ οὐρῷ, νεφρὰ δὲ ἐκ ψύξεως πάσχει ὁ νοσήσας· αὐτὰ γὰρ ἐκ φλεγματισμοῦ ἔχει πεπλησμένα, διὸ καὶ ἐξέλκυσον κλυστηρίῳ σὺ τὰ φλέγματα.

Προβάτου συνέψησον καλῶς τὴν κάραν σύμαλλον μετὰ ἀλατος μόνου καὶ κλυστηρίασον· σπόρον δὲ καρδάμου ἄς πίη καὶ γαλαγγάν μετὰ τοῦ κυπέρου· εὐθὺς δὲ τὸν πάσχοντα εἰς τὸ σκέλος φλεβοτόμησον. Θολὸν τὸ ἐνδέκατον τρυγίαν ἔχον κάτωθεν, ἐκ τῆς φούσκης δὲ ἥλθεν ἔχούσης οὐρῆμα καὶ πρὸς δυσουρίαν ἐπείγει ὁ ἀσθενῶν· ἡ λίθον ἡ ἄμμον γάρ, ὁ τοιοῦτος ὑποστήσεται.

Ἄς πίη καστόριον ἐν τάχει καὶ ὄριγανον, ἐλαιόστεα ἄμα τριπτὰ, εἰς βρῶσιν τε ἔστω ὀκτάποντος· βλαστάριά τε καρπῶν, στάχος, γαλαγγάν τε λυγόσπερμα ρύχης τε καὶ κινάμωμον, ἀδίαντον.

The tenth is white and cloudy resembling donkey's urine; the sick person suffers from coldness of the kidneys; for these [i.e. the kidneys] are full of phlegm, and thus you should draw out the phlegm using a clyster. Roast the head of a sheep with its wool still on with nothing but salt and administer the broth as an enema; let him drink cardamom seed, galangal, and nut grass; and then venesect the leg of the sufferer immediately. The eleventh is cloudy having sediment on the bottom [of the vial] which came from the bladder, which contains urine; and the patient has pressing dysuria due to stone or sand and he suffers.

Let him quickly drink castoreum and oregano, and let him eat pounded olive pits, octopus, vine tendrils, spikenard, galangal, seed of the chaste tree, cinnamon, and maidenhair.

Ἐξαποστειλάριον.
Ὕχος γάρ ὁ οὐρανὸν τοῖς ἀστροῖς.

Exapostilarion.

Tone 3. Having embellished heaven with the stars.

Τὸ γαλακτῶδες δὲ οὖρον, πήκτωμα ἔχον ἐξ ὄλου,
θάνατον μάθε σημαίνει, ἐξ ἀπαντος τῷ ἀρρώστῳ· τὸ
βιορβορῶδες καὶ ὅζον σημεῖον ἵσθι θάνατον.

Learn that the milky urine, which is completely coagulated always unavoidably indicates a patient's death; and that murky and foul-smelling [urine] is a sign of death.

ΠΕΡΙΛΗΨΗ

Δυού ἔμμετρα ιατρικά κείμενα μεταφρασμένα στα Αγγλικά. Διάγνωση και θεραπεία της νόσου

Πέτρος Μπούρας - Βαλλιανάτος

Αυτό το άρθρο σκοπεύει να αποδώσει σε αγγλική μετάφραση δύο ιδιαίτερα δημοφιλή βυζαντινά έμμετρα ιατρικά κείμενα, τα οποία επικεντρώνονται στη διάγνωση μέσω της εξέτασης του αίματος της φλεβοτομίας και των ούρων. Επίσης, προσφέρουν σημαντικές θεραπευτικές οδηγίες, ιδιαίτερα για την χρήση φαρμάκων. Είναι γραμμένα σε μορφή λειτουργικών ύμνων που συνδυάζουν μνημονικές τεχνικές. Τα κείμενα σώζονται σε διάφορες εκδοχές και συχνά αποδίδονται είτε στον Νικηφόρο Βλεμμύδη είτε στον Μάξιμο Πλανούδη, υστεροβυζαντινούς διανοούμενους και διάσημους δασκάλους ανώτερων εκπαιδευτικών προγραμμάτων στην Κωνσταντινούπολη και την Νίκαια.

Λέξεις Κλειδιά: Βυζαντινή ουροσκοπία, φλεβοτομία, ζουλάπια, παραύμνογραφία, Νικηφόρος Βλεμμύδης, Μάξιμος Πλανούδης

REFERENCES

1. The most recent edition of the texts is by Jacque J, *Nicandre. Œuvres. Tome II. Les thériaques. Fragments iologiques antérieurs à Nicandre*, Paris: Les Belles Lettres, 2002; and Jacques J, *Nicandre. Œuvres. Tome III. Les Alexipharmaciques. Lieux parallèles du livre XIII des Iatrica d'Aétius*, Paris: Les Belles Lettres, 2007.
2. The most recent study on Nicander's poems is by White H, *Studies in the Poetry of Nicander*, Amsterdam: Hakkert, 1987. On Nicander's toxicology, see the informative papers by Scarborough J, 'Nicander's Toxicology I: Snakes', *Pharmacy in History* 19 (1977), 3-23; Scarborough J, 'Nicander's Toxicology II: Spiders, Scorpions, Insects and Myriapods', *Pharmacy in History* 21 (1979), 3-34, 73-92.
3. See, for example, Ibn Sīnā's (d. 1037) *Poem on Medicine* (*Urjūzah fī al-Ṭibb*) in Arabic, edited by Jahier H and A Noureddine, *Avicenne: Poème de la médecine*, Paris: Les Belles Lettres, 1956; and Gilles de Gorbeil's (d. 1224) poem *On Urines* in Latin, edited by Kliegel P, *Die Harnverse des Gilles de Gorbeil*, Rheinische Friedrich-Wilhelms-Universität Bonn: PhD thesis, 1972.
4. The text has been edited by Westerink L G, *Michaelis Pselli Poemata*, Leipzig: Teubner, 1992, 190-233. On Psellos's sources and audience, see Hohlweg A "Medizinischer 'Enzyklopädismus' und das ΠΙΘΗΜΑ ΙΑΤΠΙΚΟΝ des Michael Psellos", *Byzantinische Zeitschrift* 81 (1988), 39-49 and Hörandner W, 'The Byzantine Didactic Poem – A Neglected Literary Genre? A Survey with Special Reference to the Eleventh Century', in *Poetry and its Contexts in Eleventh-century Byzantium*, ed. F Bernard and K Demoen, Farnham: Ashgate, 2012, 55-67, at 61, respectively.
5. On amateur physicians (*philiatroi*) and intellectuals interested in medicine in Byzantium, see Bouras-Vallianatos, P, *Innovation in Byzantium Medicine: The Writings of John Zacharias Aktouarios (ca.1275-ca.1330)*, Oxford: Oxford University Press, 2020, 106-110.
6. Mitsakis K, 'Byzantine and Modern Greek Parahymnography', in *Studies in Eastern Chant*, ed. D. Conomos, vol. 5, Crestwood NY: St Vladimir's Seminary Press, 1990, 9-76.
7. Diamandopoulos A, 'Uroscopy in Byzantium', *American Journal of Nephrology* 17 (1997), 222-227. Bouras-Vallianatos, *Innovation in Byzantium Medicine*, 40-45.
8. The work has been studied from a medical point of view by Diamandopoulos A, *Musical Uroscopy*, Patra: Achaikes Ekdoseis, 1996.
9. Liu A et al. 'Rose bud extract as a natural antimicrobial agent against *Staphylococcus aureus*: Mechanisms and application in maintaining pork safety', *LWT - Food Science and Technology* 176 (2023), 114527.
10. Bouras-Vallianatos P, 'Cross-Cultural Transfer of Medical Knowledge in the Medieval Mediterranean: The Introduction and Dissemination of Sugar-Based Potions from the Islamic World to Byzantium', *Speculum* 96 (2021), 963-1008.

11. Ideler J L, *Physici et medici Graeci minores*, vol. 2, Berlin: G. Reimer, 1842, 318-322. Kousis A, 'Les oeuvres médicales de Nicéphoros Blémmydès selon les manuscrits existants', *Πρακτικά Ακαδημίας Αθηνῶν* 19 (1944), 56–75.
12. Diamandopoulos A, *Musical Uroscopy*, 1996.
13. Skarpelos A, editor, 'Nephrological parahymnography: the texts and their presentation at the international scientific conference in Delphi', [Internet]. 15 February 2001. Available at: http://i-m-patron.gr/i-m-patron-old.gr/keimena/nefrologiki_010214.html (accessed 2 February 2024).
14. <https://www.bbc.co.uk/programmes/b098gpgs> (accessed 2 February 2024).

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