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Author(s): Fukushima, Masayuki

Citation: 西洋古典論集 = CLASSICAL STUDIES (2020), 25: 1-17

Issue Date: 2020-03-03

URL: http://hdl.handle.net/2433/246216

Type: Departmental Bulletin Paper

Textversion: publisher

Kyoto University
Rudimentary Classification of Diseases in the Hippocratic Corpus

Masayuki Fukushima

1. Introduction

Although nearly six–hundred–and–fifty symptoms, syndromes, and diseases are described in the Hippocratic Corpus, surprisingly, neither a systematic definition nor classification of disease is presented in it. This is mainly because the focus of Hippocratic authors was on prognosis and therapy, rather than on disease itself. However, some Hippocratic works – known as nosological treatises such as On Affections, On Internal Affections, and On Diseases I, II, and III – attempt to categorise diseases. It should also be noted that the importance of distinguishing one disease from another was recognised by the author of On Diseases I.

‘Ὀρθῶς δ’έν αὐτῇ καὶ οὐκ ὀρθῶς τὰ τοιάδε· οὐκ ὀρθῶς μὲν, τὴν τε νοῦσον ἐτέρην ἐοῦσαν ἐτέρην φάναι εἰναι (On Diseases 1 c.6: Potter p.110, 6–8 = Wittern p.16, 1–2 = Littré VI, 150, 6–7)

“Correctness and incorrectness in medicine are as follows: it is incorrect to say that a disease is different from what it really is…” (trans. Potter, p.111)

Many modern scholars now agree that the nosological works were influenced by a disease catalogue titled Knidian Opinions, which is no longer extant.¹

* My sincere gratitude goes to Honorary Professor Elizabeth M. Craik (St. Andrews) who has read this paper in draft and given me advice.

Nevertheless, it can clearly be seen that there are divergences in classification even amongst these nosological works. In fact, this plethora of divergences was also problematic for one Hippocratic author himself.

"Yet the many phases and subdivisions of each disease were not unknown to some; but though they wished clearly to set forth the number of each kind of illness their account was incorrect. For the number will be almost incalculable if a patient’s disease be diagnosed as different whenever there is a difference in the symptoms, while a mere variety of name is supposed to constitute a variety of the illness" (trans. Jones p.65).

The author criticises the way in which Knidian physicians categorised diseases, notably its excessive subdivision of disease. In this paper, I intend to investigate
the Hippocratic disease classification, with particular reference to the divergences and rudimentary attempts to classify some diseases.

2. Two major categorisation methods
One arrangement for describing diseases was organised in accordance with the affected areas of the body, using a capite ad calcem (head-to-toe) order. For instance, *On Diseases* II and *On Affections* clearly follow this order: diseases of the head (*On Diseases* II c. 1–37, *On Affections* c.2, 4, 5), diseases of the upper cavity (*On Diseases* II c.44–65, *On Affections* c. 6, 7, 9, 10, 11, 12), diseases of the lower cavity (*On Affections* c.14–28), diseases of the lower limb (*On Affections* c.29–31).

The other arrangement was to mention the names of diseases directly, such as in *On Internal Affections*.

Φθίσιες τρεῖς· αὕτη μὲν γίνεται ἀπὸ φλέγματος, ἐπὴν ἡ κεφαλὴ φλέγματος πλησθεῖσα νοσήσῃ καὶ θέρμη ἐγγένηται, (*On Internal Affections* c.10: Potter 1983, p.102, 7–9 = Littré VII, 188, 26–190, 1)

“Three consumptions: the first one arises from phlegm. When the head, on being filled with phlegm, becomes ill and is occupied by burning heat...” (trans. Potter, p.103)

Ἄλλη φθίσις· γίνεται μὲν ἀπὸ ταλαιπωρίης, πάσχει δὲ πλῆθος τὰ αὐτὰ, ἢ καὶ ὁ πρόσθεν· (*On Internal Affections* c.11: Potter p.106, 4–5 = Littré VII, 192, 8–9)

3 This order was primarily used in Mesopotamian and Egyptian medicine. See Di Benedetto (1986), p.91, Roselli (2018), p.181
“Another consumption: this one arises as the result of exertion, and the person suffers, for the most part, the same things as in the preceeding one;” (trans. Potter, p.107)

Ἑτέρη φθίσις· ὑπὸ ταύτης τάδε πάσχει (On Internal Affections c.12: Potter, p.106, 19 = Littré VII, 192, 19)

“Another consumption: from this one the person suffers the following” (trans. Potter, p.107)

In this system, the author itemises different types of disease under one main disease with an established name. Some Hippocratic writers similarly enumerated significant symptoms using this system to make the recognition of diseases more easily identifiable. Furthermore, these records enabled physicians to share principal ideas amongst each other. One of the most famous comparisons of nosological treatises is between On Diseases II and On Internal Affections.

It is generally agreed that certain chapters in these two treatises share similarities in terms of disease content. For instance, On Internal Affections Chapter 3 and On Diseases II Chapter 57 describe the symptoms of lung disease. The former

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4 See Di Benedetto (1986), p.18, Potter (1990), p.250 “It is difficult, in cases like this, to know whether the several different diseases with the same name represent different nosological entities, or whether they are varieties of the same one.”

5 See an exhaustive work of Jouanna (2009 [orig. 1974])). Littré’s remark for parallels between On Internal Affections (Int.) and On Diseases II (Morb. II). Int.c.1~Morb.II c.53, Int.c.2~Morb.II c.54, Int.c.6~Morb.II.c.55, Int.c.7~Morb.II c.58, Int.c.8~Morb.II c.62, Int.c.9~Morb.II c.60, Int.c.13~Morb.II c.51. Also, correspondences suggested by Grensemann (1975), p.146. Int.c.1~Morb.II c.53, Int.c. 2~Morb.II c.54a, Int.c.3~Morb.II c.57, 52, Int.c.6~Morb.II, c. 55, Int.c.7~Morb.II, c.54b, 58, Int.c.8~Morb.II, c.62, Int.c.9~Morb.II, c. 60, Int.c.10~Morb.II c.48,50, Int. c.21~Morb.II c.71 Int. c.23~Morb.II c.61 Int. c.35–38~Morb.II c.38, 39.
describes a disease of the lung, whereas the latter a tubercle formed in the lung. The symptoms of pleumonos in Int. are a sharp dry cough, chills, fever, pain in the chest, back, and sometimes the side, and severe orthopnoea (βῆξ ὀξείη ξηρὴ ἱσχει, καὶ ρίγος, καὶ πυρετός, καὶ ὀδύνη ἐν τοῖσι στήθεσι καὶ ἐν τῷ μεταφρένῳ ἔγκειται, ἐνίοτε δὲ καὶ ἐν τῷ πλευρῷ καὶ ὀρθοπνοίη σφοδρή ἐμπίπτει). On the other hand, On Diseases II c.57 also enumerates coughing, orthopnoea, and sharp pain in the chest and sides (βηξ έχει καὶ ὀρθοπνοίη καὶ ὀδύνη ἐς τὸ στήθος ὀξέη καὶ ἐς τὰ πλευρά). These symptoms are said to have lasted fourteen days in both treatises.

However, On Diseases II c.57 reports that the patient also experienced pain in the head and eyelids, and he could not see (καὶ τὴν κεφαλὴν διαλγέει καὶ τὰ βλέφαρα, καὶ όραν οὐ δύναται). These two characteristic symptoms, pain in the head and visual impairment, do not occur in On Internal Affections c.3, but in c.4, instead (On Internal Affections c.4 Potter, p.86,12–13). It is noticeable that these disorders appear in an unexpected place.

Another comparison can be made between On Internal Affections c.9 and On Diseases II c.60. In this case, the incongruities between chapters can be seen more clearly because they both explicitly reference the same disease, i.e. tuberculosis of the side.

"Ἡν ἐν πλευρῷ φύμα φύηται καὶ ἐμπύος γένηται, τάδε πάσχει· ρίγος ἵσχει καὶ πυρετός, καὶ βῆς ξηρῆς προλάς ἱμέρας, καὶ ἀλγεί τοῦ πλευρών, καὶ ἐς τὸν τιθῶν καὶ ἐς τὴν κληῗδα καὶ ἐς τὰς ὠμοπλάτας ὀδύνη ἵσχει ἀδιάσωσια. (On Internal Affections c.9: Potter, p. 98, 14–18 = Littré VII, 186, 19–22)"

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6 The name of the disease πλευμόνος occurs only in On Internal Affections in the entire Hippocratic Corpus.

7 Roselli (1990), p.166 called this phenomenon “displacement of symptoms” This term is adopted here for want of a better word.
“If a tubercle forms in the side… the patient suffers the following: he has chills, fever and a dry cough for many days, he aches in his side, and there are darting pains towards his nipple, collar–bone and shoulder–blades.” (trans. Potter, p.99)

Ἐπὴν ἐν πλευρῷ φῦμα φυῇ βιῆς ἔχει σκληρὴ καὶ ὀδύνη καὶ πυρετὸς καὶ ἔγκειται βαρὺ ἐν τῷ πλευρῷ καὶ ὀδύνη ἔξει ἐς τὸ αὐτὸ ἄει χωρίων λαμβάνει καὶ δίψα ἵσχυρή καὶ ἀπερεύγεται τὸ πόμα θερμὸν καὶ ἐπὶ μὲν τὸ ἄλγεον οὐκ ἀνέχεται κατακείμενος ἐπὶ δὲ τὸ υγίες ἀλλ' ἐπὴν κατακλίνῃ δοκεῖ οἶον περ λίθος ἐκκρέμασθαι (On Diseases II c.60: Jouanna p.199, 11–17 = Littré VII, 92, 19–94, 1)

“When a tubercle forms in the side, harsh coughing, pain and fever are present; a heaviness lies in the side; there is a violent thirst, and the patient regurgitates what he drinks hot. He will not tolerate lying on his painful side, but prefers the healthy one; when he lies down, something like a stone seems to hang down from his side”. (trans. Potter, p.305)

This figurative feature described as a “hanging stone” in On Diseases II c.60 (ἀλλ' ἐπὴν κατακλίνῃ δοκεῖ οἶον περ λίθος ἐκκρέμασθαι,) is not found in On Internal Affections c.9 but in c.8 which illustrates the tearing of the chest and back (On Internal Affections c.8 ἐν τῷ πλευρῷ δοκέει οἶον λίθος ἐγκέεσθαι). Here again, the “displacement” of symptoms occurs, and there is a lack of consensus between authors on exactly which symptoms are attributed to a single disease (tubercle formed in the side).

3. Nomenclature
If, around the brain, small vessels overfill with blood (this name is not a correct one for the disease, because no vessel, either one of the lesser ones or one of the greater ones, can actually be overfilled with blood. Still they use this name and say that they overfill with blood…” (trans. Potter, p.195)

The above author’s reluctant acceptance of the nomenclature is particularly interesting, given his implication that a certain disease was assigned a name reflective of its symptom. Although it is certainly true that nomenclature in the Hippocratic Corpus is rudimentary, there were several names that were generally acknowledged at the time of writing.

Regarding the nomenclature of the Hippocratic Corpus, there are principally two different naming systems. The first relates to the affected parts of the body, while the second is determined by the essential phenomena of the diseases in question. Remarkably, both naming systems are mentioned by Galen in Method of Medicine.

Oútw dè toúton diwrioseménoun epiblépein ákribòs chrì tìn ánwmalián tòn ónomátovn, ã katà tòn vosimáton épínegkan oì pròtoi thêmenoi pollassóthi mèn gàr ãpò toú véléblaménon moriou tà ónòmatà, pluvréttis kai peripneumónia kai ischías kai podágra kai nefrítis kai árhrítis, órfhalmía te kai kefalalugía kai duventeríía: pollassóthi ñ' ãpò toú sumpítómatos, èileos kai teinesmós kai spásmos kai palmod kai trómos kai parálusis, ápetasia te kai dúspnoia kai ápnoia kai ágrupnia kai parafrosúnh kai kóma: (Method
of Medicine II c.2: Johnston–Horsley, p.126, 20–128, 2 = Kühn X. 81,17–82, 8)

So, having established these definitions, it is necessary to look closely and precisely at the inconsistency of the names which those who first applied them assigned to diseases. Very often, they derived the names from the damaged part (pleuritis, peripneumonia, sciatica, and dysentery), very often from the symptom (ileus, tenesmus, spasm, palpitation, tremor, paralysis, apepsia, dyspnea, apnea, insomnia, delirium and coma) (trans. Johnston–Horsley, p.127)

With these points in mind, it is now possible to examine On Airs, Waters, and Places, an authentic Hippocratic works. The diseases mentioned in this book are as follows.8

αἵμορροῖ (7) haemorrhage, αἵμορροῖς (40) hemorrhoid, ἄσθμα (36) dyspnea, βαρωφωνίη (1) bass voice, βήξ (185) cough, βράγχος (16) sore throat, δυσεντερίη (66) dysentery, διαρροῖ (68) diarrhoea, ἕλκος (459) wound, ἐπινυκτίς (4) nocturnal fever, ἦπιάλος (3) ague, ἰσχιάς (20) sciatica, κατάρροος (33) downward flux, καῦσος (75) kausos~burning fever, κεφαλαλγίη (36) headache, κήλη (4) tumor, hernia, κυσός (20) varicocele, κόρυζα (15) mucus, rheum, λειεντερίη (19) lientery, μελαγχολίη (5) melancholy, νεφρῖτις (8) nephritis kidney disease, οἴδημα (162) swelling, ὀφθαλμίη (22) ophthalmia, περιπλευμονίη (85) pneumonia,


9 Jouanna (2003), p.271, n.1, On traduit d’ordinaire par «hernie» en general; mais il s’agit plus précisément de «tumeur scrotale».
πλευρίτις (75) pleurisy, ποδαγρή (5) gout, ρήγμα (18) rupture, σπασμός (179) / σπάσμα (11), convolution, στραγγουρία (44) strangury, σφάκελος (8) caries, ύδερος (33) // ύδρωπσ (80) dropsy, φαγέδαινα (4) cancerous sore, φθίσις (42) phthisis or consumption.

Some of them are not certain even etymologically, but δυσεντερία [δυσ-, ἔντρον], ἰσχία [ἴσχιον], καφαλαλγία [κεφαλή ἄλγος], λειαινη [λείος, ἔντρον], νεφρίτις [νεφρός], ὕφαλμη, περιπλευμονή, πλευρίτις, and ποδαγρή [πούς, ἔγρεω] roughly belong to the category of the names derived from the affected parts of the body, whereas αἰμορροία, αἰμορροίς [αἷμα, ἔγρεω], βαρυφωνία, δίαρροή [διαρρέω], ἐπίνυξ [ἐπι, νῦξ], κατάρροος [καταρρέω], καύσος [καίω], οἰδήμα [οἴδεω], ρήγμα [ῥήγνυμι], σπασμός[σπάω], στραγγουρία [στράγξ, οὖρον], ύδερος / ύδρωψ [ὁδωρ ὤψ], φαγέδαινα [φαγεῖν], and φθίσις [φθίω] fall within the category of those derived from the symptoms.11

Difficulty also lies in that symptoms and diseases are not strictly distinguished in the early stages of nomenclatural creation. The most explicit case of this is fever. In the Hippocratic Corpus, fever is regarded as a symptom and a disease itself (i.e. καῦσος), rather than solely a symptom, as it is now.

4. Acute and chronic diseases

In spite of divergences in disease classification, one category which is unanimously agreed on by Hippocratic authors is “acute diseases,” which appears not only in nosological treatises but also in other important treatises.

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Pleuritis, pneumonia, ardent fever, and of diseases considered acute, rarely occur. (trans. Jones, p.75)

“I should most commend a physician who in acute diseases, which kill the great majority of patients, shows some superiority. Now the acute diseases are those to which the ancients have given the names of pleurisy, pneumonia, phrenitis, and ardent fever, and such as are akin to there, the fever of which is on the whole continuous.” (trans. Jones, p. 67)

“With regard to diseases in the cavity, you must consider the following: pleurisy, pneumonia, ardent fever, and phrenitis. There are called “acute”, and occur most frequently and violently in winter; they occur in summer as well,
but less frequently and more mildly. If you meet them, you will be most successful by acting and counselling as follows.” (trans. Potter, p.15)

It is true that the definition of “acute diseases” is not completely determined, as in the case of On Acute Diseases c.5, which contains continuous (συνεχεῖς) fever. However, πλευρῖτις (pleurisy), περιπλευμονία (pneumonia), φρενῖτις (phrenitis), and καῦσος (burning fever) are generally considered as acute diseases.12 From the perspective of modern medicine, it seems somewhat odd that the Hippocratic authors did not conceive of an opposite category of conditions: chronic diseases13. Even though no disease is classified under the name of “chronic disease”, the rudimentary classifications for chronic diseases can be seen.

τοῖσι δὲ ἀνδράσι δυσεντερίας καὶ διαρροίας καὶ ἡπιάλους καὶ πυρετοῦς πολυχρονίους χειμερινοὺς καὶ ἐπινυκτίδας πολλὰς καὶ αἱμορροίδας ἐν τῇ ἕδρῃ (On Airs, Waters and Places c.3: Jouanna p.191, 3–6 = Jones, p.74, 21–24 = Littré, II, 18, 5–7) “Men suffer from dysentery, diarrhea, ague, chronic fevers in winter, many attacks of eczema, and from hemorrhoids.”
(trans. Jones, p.75)

12 See also Prognostic (perioneumonie c.3 (Coac. 487 adds pleuritis for the same signs.), c.4, c.14, c.18, phrenitis c.4), On Diseases I (c.24–34). Aphorism. 6, 54 says acute diseases are accompanied with fever (μετὰ πυρετοῦ Jones p.190 25–26). The author of Prognostic does not much mention the definition of “acute diseases” because he intended to write this work for physicians, not for laymen. See Jouanna (2013), p. xv.
The author enumerates “chronic fevers in winter (πυρετοὺς πολυχρόνιους χειμερινοὺς Jounanna, p. 191, 5 = Jones, p.23)” in the list of diseases which occur in cities exposed to hot, southerly winds. In most cases, the word πολυχρόνιος or simply, χρόνιος, is used to describe the duration of symptoms or diseases. For instance, Prorrhetic II c.18 disease of the eye~χρόνιον c.23 leientery~πολυχρόνιοι, On Fractures c.11 wound in the leg~χρόνιον, On Joints c. 49 injuries~χρόνιος (Withington (1928), p.307 n.1), Prorrhetic II c.10, cough~χρόνιον, Prorrhetic II c.41 sciatica~χρόνιον, Prorrhetic II c.42 pain and swelling in the joint~χρόνιος, Koan Prognoses pleuritis~πολυχρόνιον, On Diseases IV c.57 dropsy¹⁴~χρόνιον, On Affections c.2 the disease in the head~πολυχρόνιον, On Affections c.20 the disease of the spleen~πολυχρόνιον, On the sacred Disease c.11 the sacred disease(epilepsy?)~πολυχρόνιος, On Internal Affections c.2 tear in bronchial tube~πολυχρόνιος, On Internal Affections c.30 the disease of the spleen~χρόνιος, and On Internal Affections c.50 fever in the ‘thick’ disease~πολυχρόνιοι.

It may be worth pointing out in passing that symptoms and diseases of short duration are also mentioned by the author of On Airs, Waters and Places.

₁⁴ Lonie (1981), p.41
The opposite term of “chronic”, ὀλιγοχρόνος, is used in the sense that a disease lasts for a short amount of time. In many contexts, this pattern has some currency, with “chronic” being utilised to merely illustrate the duration of a certain disease. Nonetheless, it appears to assume that this term can be also used as the name of a category of diseases.15

Ἀλλὰ περὶ μὲν τούτων ἐν τοῖσι χρονίσι κατὰ πλεύμονα νοσήμασιν εἰρήσεται· ἐκεῖ γὰρ εἰσὶν αὐτῶν χαριέσταται προγνώσιες περὶ τῶν μελλόντων ἔσεσθαι.

(On Joints c. 41: Withington, p. 282, 15–18 = Littré IV, p. 182, 9–12)
“But these will be discussed among chronic diseases of the lung; for the most satisfactory prognoses as to their issue come in that department.” (trans. Withington, p.283)

ἡν δὲ μὴ μελεδαίνηται, φθείρεται τὸ ἐμβρυον, κινδυνεύει δὲ καὶ αὐτὴ τὸ νούσημα χρόνιον ἔχειν, ἂν οἱ ἡ κάθαρσις πλεῖον τοῦ δέοντος χωρέῃ μετὰ τὴν διαφθορὴν, οἷα τῶν μητρέων μᾶλλον ἐστομωμένων16. (On Diseases of Women I c.25: Littré VIII. p. 66, 4–8)
“If she is not cared for, she miscarries, and she herself is a risk of being affected by chronic diseases, if the evacuation flows more than necessity after the miscarriage, because the womb is too dilated.” (my translation)

Αἱ λεπταὶ καὶ ἀκριβέες δίαιται, καὶ ἐν τοῖσι μακροῖσιν αἰεὶ πάθεσι, καὶ ἐν τοῖσιν ὄξεσιν, οὐ μὴ ἐπιδέχεται, σφαλεραί. (Aphorisms 1.4: Jones p.100 9–11 = Littré IV, p.460, 7–8)

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15 Potter (1990), p.251, n.58
16 For the text see also Grensemann (1987), p.12.
“A restricted and rigid regimen is treacherous in chronic diseases always, in acute, where it is not called for.” (trans. Jones, p.101)

"When patients have become reduced through disease, acute or chronic, or through wounds, or through any other cause, a discharge of black bile, or as it were of black blood, means death on the following day.” (trans. Jones p.141)

The last two examples are particularly notable as the word “chronic” is juxtaposed with “acute”. Therefore, some Hippocratic authors, intentionally or not, established a distinction between “acute” and “chronic” diseases. Lastly, I would draw your attention to a final example from *Epidemics* VI.

For the consumptive the fall of the year is bad. And the springs is bad when the fig leaves are like a crow’s feet. In Perinthus most of them in spring; an epidemic winter cough was a contributing cause, and for the rest as many diseases as were chronic, for they were powerful in ambiguous conditions. But it did not happen in some chronic diseases, for example in those with kidney
pains, but also for the rest, for example the man to whom Cyniscus brought me. (trans. Smith slightly modified 17)

As Manetti and Roselli indicate, a similar expression to το ἔσιν ἐνδοιαστοῖσιν ἐβεβαίωσαν is also found in *Epidemics* I, c.2, meaning that diseases in an ambiguous state manifestly appear in due course of time. From this passage, it can be observed that “chronic diseases” are compared to “acute diseases,” which advance rapidly and such nephrological disorders are categorised into one of the “chronic diseases.”

5. Conclusion
In conclusion, through the use of different methods to describe diseases and develop disease nomenclature, certain Hippocratic authors attempted to categorise diseases individually in their work. Although there is no consensus about the precise definition of each disease, acute diseases are recognised as a significant category in antiquity. Furthermore, it should be noted that some authors developed a contrasting concept to “acute,” that of “chronic.”

In considering the above, I draw the tentative conclusion that some insightful Hippocratic authors attempted to illustrate rudimentary classifications of diseases.

Bibliography


17 I follow the interpretation by Professor Manetti and Professor Roselli; “e infatti nei casi dubbi si rafforzarono; in alcuni casi di malattie croniche però questo non avvenne, come in coloro che avevano dolori nefritici, ma anche in altri, come l’uomo da cui Cinisco mi condusse.”


—— (forthcoming) ‘Classification of illnesses in the Hippocratic Corpus’


Kudlien, F. (1967) Der Beginn des medizinischen Denkens bei den Griechen, Zürich