

*Phrenitis in Classical (Fifth–Fourth Centuries BCE)  
and Hellenistic (Third–First Centuries BCE)  
Medicine*

As noted earlier, the first appearance of the noun *phrenitis* preserved for us is in the earlier, classical nucleus of texts within the *Hippocratic Corpus*.<sup>1</sup> This does not necessarily imply that the disease concept was a Hippocratic creation – indeed, it is reasonable to think that a disease by this name and with comparable characteristics must have been recognized before the written testimonies by medical communities, given the level of elaboration and codification associated with it in fifth–fourth-century BCE medicine.<sup>2</sup> It is impossible to reach back to this previous stage or to know anything precise about these earlier medical communities. Nonetheless, a comparative exploration reveals the existence of clusters of symptoms and circumstances that may constitute a precedent to the disease, specifically high fever, heat, derangement and a range of associated symptoms. If one were to adopt greater flexibility than programmatically allowed for in this study, where the focus is on the recognized nosological entity *phrenitis*, and while doing so expand the object of enquiry to other areas of ancient Mediterranean culture, numerous comparable syndromes and cases, if not perfect parallels, could be traced in Babylonian and Egyptian medicine,<sup>3</sup> as well as in other Hippocratic cases of fevers with derangement not labelled ‘*phrenitis*’.

### The Hippocratics

The medicine of the fifth and fourth centuries BCE displays a strong awareness of *phrenitis* as a well-demarcated illness with clear

<sup>1</sup> ‘La *phrénitis* est un concept hippocratique’ (Pigeaud, 1981/2006). In this chapter, and throughout the book, I use the labels ‘Classical medicine’ and ‘Hippocratic medicine’ to indicate medical texts from the fifth to fourth centuries BCE, the majority of which belong to the *Hippocratic Corpus* (*CH*); when dealing with texts from *CH* considered later than the fourth century BCE, I always specify this. On *phrenitis* in Hippocratic nosology, see also Matentzoglou (2011) 202–04.

<sup>2</sup> See Jouanna (1992/1999) 142 on this topic: the Hippocratics speak of certain nosological concepts such as *melancholia* as acquired categories well known in their profession.

<sup>3</sup> See Appendix 1 for an excursus on such ‘sun disease’.

nomenclature and fixed characteristics. The key Hippocratic evidence is found in a number of texts, which offer elaborate, paragraph-length accounts.<sup>4</sup> But mentions of the disease are much more numerous and suggest its pathological and doctrinal importance for these physicians and their patients.

As a general impression, in classical medicine *phrenitis* emerges as an acute, severe disease, often deadly, which belongs to a group of affections characterized by a high fever that seem to concentrate in the chest and respiratory tract and occur in winter.<sup>5</sup> *Aff.* 6 (14.7–11 = 6.214 L.) says expressly that ‘diseases of the cavity . . . pleurisy (*pleuritis*), pneumonia (*peripleumoniē*), ardent fevers and *phrenitis* . . . occur most frequently and violently in winter’;<sup>6</sup> at *Aff.* 10 (21 Potter = 6.218 L.) *phrenitis* is said to ‘sometimes change into pneumonia (*peripleumoniē*)’, underlining the association with the chest. At *Epid.* 1, 18 (25.8–10 Jouanna = 2.650 L.), in the third constitution, *phrenitis* occurs ‘around the equinox up to the settings of the Pleiades, and during winter’, while at *Nat. Hom.* 5 (212.1–4 Jouanna = 6.78 L.) we read that emetics and clysters – both purging methods – are to be used in the periods of the year that engender more phlegm, such as winter, when ‘diseases that attack the head and this region above the diaphragm (*to chorion touto to hyper tōn phrenōn*) occur’; *phrenitis* is not mentioned explicitly, but the details offered seem to point in that direction. At *Epid.* 7, 53 (84.21 Jouanna = 5.422 L.) the phrenitic (*phrenitikē*) sister of Hippis falls ill *cheimōnos*, ‘in winter’, while another patient, the man from Halicarnassus at *Epid.* 7, 112 (15–20 Jouanna = 5.460 L.), develops *phrenitis* after having fallen ill with earache and headache, again in winter (*en cheimōni*). As a winter ailment affecting the chest, our disease is similar to and often discussed in association with *peripleumoniē*, *pleuritis* and ardent fevers.

<sup>4</sup> *Affections* 10 (18.14–20.11 Potter = 6.216–18 L.), *Morb.* 1.30 (86.19–88.13 Wittern = 6.200 L.), *Morb.* 1.34 (92.7–18 Wittern = 6.204 L.), *Morb.* 2.72 (326.6–24 Potter = 211.15–212.10 Jouanna = 7.108–10 L.) (with Potter’s reading), *Morb.* 3.9 (76.20–29 Potter = 7.128 L.). To these should be added a number of clinical examples, the patients described at *Epidemics* 3, 17, case 4 (98.1–11 Jouanna = 3.116–18 L.); 7, 53 (84.21–25 Jouanna = 5.422 L.); 7, 112 (112.3–20 Jouanna = 5.460 L.); 7, 79 (95.8–14 Jouanna = 5.434–36 L.); 7, 80 (95.15–96.10 Jouanna = 5.436 L.).

<sup>5</sup> This region of the body was arguably fundamental for the development of the theoretical notion of *locus affectus* in ancient medicine. See van der Eijk (1998) 351 n. 53 on Grmek’s remark that the developments regarding the anatomy of *pleuritis* and *peripleumoniē* were fundamental in developing topological approaches to pathology.

<sup>6</sup> See Grmek (1991) 6–7, 307 on the translation of the term *peripl(n)eumoniē* as ‘pneumonia’.

## Symptomatology

In Hippocratic nosology, as much as in the clinical cases, a vast repertoire of manifestations of the disease appears, and a comprehensive reading reveals a clear and consistent picture. What is missing is a comprehensive, consistent aetiology, localization and course of therapeutic action. From the perspective of contemporary diagnostics, it is important that any account of a disease isolate the factors specific to it – for example, those that are not extensible to mental disorder generally – and that as such are necessary and sufficient to identify the disease.<sup>7</sup> These must be distinguished from symptoms which might be present but are insufficient or weak indicators and common to other conditions. Such precise ranking in cogency among signs was not recognized, at least explicitly, in fifth- and fourth-century medicine. The signs mentioned below thus form a constellation of manifestations, a composite ‘story’ rather than a reliable ‘symptom checker’.

Fever is from the beginning the indicator that qualifies *phrenitis* as a disease, as well as singling it out among mental disorders. The inclusion of the disease in the category of fevers is obvious, due to signs linked with overheating (shivers, chills, thirst, dryness and sweating). *Phrenitis* is deemed acute and fatal from the start:<sup>8</sup> ‘acute fevers, such as *peripleumoniē* or *phrenitis*’, specifies the author of *Progn.* 4 (13.3–5 Jouanna = 2.122 L.).<sup>9</sup> *Phrenitis* thus appears, in a sense, to be a possible outcome or development of an ardent fever, a *kausos*, and is treated as exemplary among clear-cut cases of *pyretoi*, fevers. Phrenitic fever can perhaps be milder and more gradual than other *kausoi*. At *Coac.* 223 (158.1–2 Potter = 5.632 L.), in a class of individuals suffering from eye symptoms, moderate heat is a phrenitic sign: ‘Patients who are *not* burning hot to the touch develop *phrenitis* (φρενιτικοὶ γίνονται)’, while at *Morb.* 1.30 (86.19–88.13 Wittern = 6.200 L.) the entire description of the disease is constructed from the heating of the patient’s blood, and of his body as a consequence, producing a formidable fever. In the haematocentric

<sup>7</sup> This flaw can be found, for instance, in Byl and Szafran (1996), who include traits that are neither necessary nor sufficient elements in the picture of the phrenitic. Galen is by contrast acutely aware of this problem, as Chapter 5 makes clear (see representatively *Comm. Hipp. Prorrh. I*, 1.4, 15.32–20.9 Diels = xv1.515–24 K.).

<sup>8</sup> Although the distinction between acute and chronic disease is conventionalized only later in Greek medicine; see Roselli (2018) 182–83.

<sup>9</sup> Cf. *Epid.* 1.6 (10.13 Jouanna = 2.620 L.), 1.22 (32.4–5 Jouanna = 6.666 L.), 3.5 (83.9–10 Jouanna = 3.80 L.) and 3.14 (90.16 Jouanna = 3.98 L.), where *kausos* and *ta phrenitika* are associated and implied to be categorically related.

perspective of this particular treatise, the affection of the blood and the ensuing fever are responsible for mental derangement.

Most succinctly, the patient at *Epid.* 3, 17, case 4 (98.1–11 Jouanna = 116–18 L.) is declared a *phrenitic* from the start. The description, a short case ending with death, is quite expressive:

The patient suffering from *phrenitis* on the first day that he took to bed produced copious thin vomit the colour of verdigris; much fever with shivering; continuous sweating all over; painful heaviness of head and neck; urine thin, with small, scattered substances floating in it, which did not settle. Copious excreta at a single evacuation; delirium; no sleep. *Second day.* In the early morning speechless; acute fever; sweating; no intermission; throbbing all over the body; convulsions at night. *Third day.* General exacerbation. *Fourth Day.* Death.<sup>10</sup>

Fever has a wide range of specific manifestations in phrenitic cases. At *Prorrh.* I, 27 (78.2–3 Polack = 5.516 L.) restlessness (*dysphorai*) during a chill in a patient with fever who is perspiring in the upper half of his body is a phrenitic sign (*phrenitikai*): we have here fever with a sense of unrest, as well as a pathological focus on the torso. Likewise, at *Coac.* 69 (120.13–14 Potter = 5.598 L.) *phrenitis* (and death) are foreshadowed by ‘restlessness together with a general cooling that does not end with the fever, in a person who is perspiring over the upper part of the body’. Frequent changes in the signs that typify fever are unfavourable indicators: at *Prorrh.* I, 12 and 13 (76.7–10 Polack = 5.514 L.) we learn that ‘in the early stages of phrenitic cases, signs that are mild, but change frequently, are a bad sign; salivation (*ptyelismos*) is also bad’, and below that ‘in patients with *phrenitis*, a white evacuation (*leukē diachōrēsis*) is bad, as it was for Archocrates. Does torpor follow in these? Chills too are very bad signs in these patients.’ At *Prorrh.* I, 15 (76.13–14 Polack = 5.514 L.) we find a description of the onset of the disease in which pyretic signs are critical: ‘Persons out of their wits (*hoi ekstantes*) who are suddenly attacked by an acute fever and sweating, are phrenitic.’<sup>11</sup>

The voice of the feverish patient is also mentioned: *Epid.* 3, 3 offers a description of spring illnesses with ‘many malignant cases of erysipelas’. Here various items are listed as signs (80.15–16 Jouanna = 3.70 L.): voices impaired (*phōnai kakoumenai*), phrenitic ardent fevers (*kausoi phrenitikoī*),

<sup>10</sup> In addition, cf. the siglum φ (= φρενίτις) assigned in *Epid.* 3, 17 to case 15 (110.2–4 Jouanna = 3.142 L.), an ancient retrospective diagnosis that confirms the importance of fever: a woman with ‘acute fever and shivering’ and derangement among other problems.

<sup>11</sup> See Polack on *Prorrh.* I, 16, 76.14–77.1 Polack = 5.514 L.

‘muffled mouths’ (*stomata aphthōdea*). The inclusion of a disease, *phrenitis*, in a list of signs does not surprise, but expresses the magmatic stage in the thematization of ‘disease entity’ in the sense in which we understand it today. The muffled voice returns as an indicator of *phrenitis* – as well as of consumption and ardent fevers – at *Epid.* 3, 5 (83.7–10 Jouanna = 3.76–80 L.): ‘Many had the symptom of impaired and muffled voices (*phōnai katillousai*), first at the beginning of cases of consumption, but also in ardent fevers and in those with *phrenitis*.’ At *Epid.* 3, 6 (85.3–5 Jouanna = 3.82 L.) ardent fevers and cases of *phrenitis* (*hoi phrenitikoï*) are described together as not being thirsty and displaying a particular kind of derangement, which involves not mad delirium but stupor: ‘None of these phrenitic patients was raving mad, as in the other cases, but they passed away overpowered by a dull oppression of stupor (*tini kataphorēi kakēi, nōthreï, bareōs apollynto*).’ The deaths of these patients are described as similar to what happens with other ardent fevers, ‘varying with the individuals, usually irregular, at the crises, but in some cases after a long loss of speech, and in many with sweating’. At *Epid.* 3.11 (88.1–2 Jouanna = 3.90–92 L.), moreover, phrenitic patients are said to be ‘comatose for most of the time’ (like people suffering from ardent fevers, *kausōdees*, those suffering from ardent fever and most other diseases involving a high fever).

The topic of fever and its massive presence in Hippocratic medicine played an important role in the history and historiography of ancient medicine, especially a few decades ago, when retrospective diagnoses of malaria and other infectious diseases were proposed to make sense of these depictions.<sup>12</sup> Malaria was endemic in ancient Greece,<sup>13</sup> but this bio-historical datum is irrelevant to the study of the constructed notion of *phrenitis* as a mental disease, and there is little to gain from pursuing the diagnosis.

The quality of urine, an established area of Hippocratic observation, is especially important in cases of *phrenitis*, and will return for centuries in accounts of the disease. The urine of these patients is whitish and thin, and may contain suspended matter. At *Coac.* 571 (250.17–19 Potter = 5.716 L.) ‘colourless urine with dark suspended material in it, in association with

<sup>12</sup> Jones (1909). See van der Eijk (2014) on the historiography of ancient malaria; Craik (2020) for more recent, qualified support for the claim of the importance of malaria; Hamlin (2014) 7–15 on the methodological (linguistic, biological, cultural and philosophical) problems posed by a history of fevers, 17–87 on fevers in classical medicine; Baron and Hamlin (2015). See Appendix 1 on fever, seasonality and *phrenitis*.

<sup>13</sup> On malaria and the ancient Greek world, see Grmek (1991) 278–82; Nutton (2004) 32–33; Craik (2020); Appendix 1.

sleeplessness and trouble, indicates *phrenitis* (*phrenitika*). At *Aph.* 4.72 (426.7 Magdelaine = 4.528 L.) a particular kind of urine – white and transparent – is bad (*ponera*) and characteristic of *phrenitic* patients.<sup>14</sup> At *Prorrh.* I, 4 (75.8–10 Polack = 5.510–12 L.) it is said that ‘in concomitance with disturbance (*tarachos*) and bad sleep, urine of a bland colour, with dark suspensions, is a sign of derangement (*parakroustika*); with sweating, *phrenitis* . . . in cases of disturbance and insomnia’.<sup>15</sup>

With fever come dryness and thirst/lack of thirst<sup>16</sup> as part of the pathological portrait. At *Prorrh.* I, 3 (75.7–8 Polack = 5.510 L.) we learn that ‘muffled tongues’ (*daseiai glössai kai kataxēroi*, i.e. those that are dry and unable to speak clearly) are *phrenitikai*, while at *Coac.* 229 (158.26 Potter = 5.634 L.) ‘rough, very dry tongues indicate *phrenitis* (*phrenitika*)’. Patients with fever, and the phrenitics among them especially, often exhibit *aphasia*, speech impairment and a lack of clarity in verbal expression that can be explained in terms of mental disorder, but that is also plausibly a consequence of overheating. In fact, much of the repertoire of mental disturbance in this period, when considered in this connection, is of a feverish sort.

Along similar lines, spasms and motor disturbance are important signs of the disease in the Hippocratics, and are generally linked to mental health. At *Epid.* 7, 112 (112.3–10 Jouanna = 5.460 L.) Polyphantes of Abdera had a high fever, suffered from continuous headaches and pain in the throat, and ‘was mad in the manner of the *phrenitics* (*tropon phrenitikon*) and then died of intense spasms’. At *Progn.* 23 (76.3–7 Jouanna = 2.186–88 L.) motor disturbances are discussed and their severity placed in relation to the age of patients: older children and adults do not fall prey to these symptoms ‘unless one of the most severe and unfavourable signs appear, as is precisely the case with cases of *phrenitis*’. Likewise at *Prorrh.* I, 28 (78.4 Polack = 5.516 L.) the spasms of phrenitics are said to be not only intense but frequent (*pykna metapiptonta spasmōdea*); in these patients especially, violent trembling is fatal (*Coac.* 96, 126 Potter = 5.604 L.).

Among types of motor disturbance, one in particular is significant for these cases, as is hinted at in the case of Hippis’ sister at *Epid.* 7, 53 (84.21–24

<sup>14</sup> The same concept is confirmed by *Coac.* 568 (238.12–14 Potter = 5.714 L.).

<sup>15</sup> Likewise, at *Coac.* 90 (124.15–16 Potter = 5.602 L.): ‘In cases of *phrenitis*, white excretions accompanied by torpor, bad (κακόν).’

<sup>16</sup> A not unusual, if contradictory pair (cf. Thumiger 2017, 210–19): notwithstanding the heat, these patients may also display *adipsia*, i.e. they do not drink or they refuse to drink. See also *Prorrh.* I, 16 (76.14–77.1 Polack = 5.514 L.): ‘the phrenitics: thirstless, oversensitive to noise, with tremors (*oi phrenitikoí, brachypotai, psophou kathaptomenai, tromōdees*)’ and *Coac.* 95, 125.25–26 Potter = 5.602–04 L.

Jouanna = 5.422 L.), who ‘was phrenitic: . . . very busy with her hands (*tēisi chersi pragmateuomenē*), lacerating herself . . . puffing into her jaws and lips like sleeping people’. This kind of compulsive hand movement is often noticed with the disease. Such behaviour, usually referred to as ‘crocydism’, ‘carphology’ or ‘flocillation’, is a known neurological datum, the compulsive and perhaps hallucinatory movement of the hands that is a consequence of fevers (e.g. in cases of typhus); it is a sign between motoric compulsion and hallucination – perhaps, from the modern point of view, an intersection of cognitive datum and neurological disturbance. At *Progn.* 4 (13.3–14.2 Jouanna = 2.122 L.) the discussion centres on precisely this aspect, and *phrenitis* is mentioned with reference to compulsive movement of the hands, together with other cases involving high fevers (*peripleumoniē* and *kephalgīē*):

About movements of the hands, this is my opinion: in those who suffer from high fevers, in cases of *peripleumoniē*, or *phrenitis*, or *kephalgīē*, to bring them before one’s face and search through the empty air, and try to pick bits of wool from the cover, and peel threads from one’s clothes, and scratch dirt from the wall. All these are bad and anticipate death.

The claim that ‘derangements accompanied by tremors, unclear/confused, with carphology, are eminently indicative of *phrenitis*’ (*tromōdees, asaphees, psēlaphōdees parakrousies, pany phrenitikai*) also appears at *Prorrh.* I, 34 (78.15–79.1 Polack = 5.518 L.).<sup>17</sup> Again, being necessary and/or sufficient is not considered a requirement in these pathological discussions, contradicting the expectations of modern medicine, or even of Galen: many of these signs are extended elsewhere to deranged or feverish patients generally.<sup>18</sup> But the lack of a cogent symptom checklist should not prevent us from inferring patterns from the descriptions.

Last but not least, *phrenitis* always carries the markers of mental disturbance. This can take various forms. Familiar terms and expressions for derangement – delirium, talking nonsense, and other cognitive disturbances, but also unexplained silences, sensory impairment (numbness, deafness) and trouble sleeping (from insomnia and disturbed sleep to comatose states) – all belong to typical portrayals of mental affection.

<sup>17</sup> The concept is repeated in the prognostic text *Coac.* 76 (122.1–3 Potter = 5.600 L.), while again at 78 (122.9–11 Potter = 5.600 L.) ‘derangements with trembling and groping with their hands are signs of *phrenitis*; pains in their calves lead to a disturbance of the mind’.

<sup>18</sup> Compare *Prorrh.* I, 36 (79.2–6 Polack = 5.518 L.): ‘Pains (*ponoi*) about the navel accompanied by trembling may involve some disturbance of the mind (*echousi men ti kai gnōmēs paraphoron*), and at their crisis these patients pass a great quantity of wind and not without pain. Pains (*ponoi*) in the calf of the leg in such cases are also disturbing to the mind (*gnōmēs paraphoroi*).’

Full discussions of *phrenitis* (in nosology as much as in patient cases) necessarily mention mental suffering:<sup>19</sup> ‘He is deranged in the mind’ (*tou nou parakoptei*, *Aff.* 10, 18.19 Potter = 6.217 L.); ‘Patients with *phrenitis* most closely resemble melancholics in their derangement (*kata tēn paranoian*), for melancholics too, when their blood is disordered by bile and phlegm, have this disease and are deranged (*paranooi ginontai*) – some even rage (*mainontai*)’. In *phrenitis* it is the same, only here ‘the raging and the derangement (*hē maniē te kai ē paraphronēsis*)’ are less to the extent that the bile in one case is weaker than that in the other (*Morb.* 1.30, 88.7–13 Wittern = 6.200 L.). Phrenitic patients are ‘out of their mind’, *ekphrones eisi* (*Morb.* 3.9, 76.21–22 Potter = 7.128 L.); they are ‘deranged (*paraphroneousin*) throughout the course of the disease’ at *Morb.* 1.34, 92.7–8 Wittern = 6.204 L.). In the patients at *Epid.* 7, 79, 80, 95–96.10 Jouanna = 5.44–46 L. (in themselves rare examples of individuals who survive the disease) external appearance and neurological manifestations (as we would define them, using our own distinctions) are emphasized at the expense of a report of cognitive alterations, in line with a general tendency in these texts: trembling, a broken although still intelligible voice, a burning fever (7, 79), along with a dreadful disorganization of physical posture, a thin, broken voice, disorientation and sleeplessness (7, 80). Within these signs, sensory disruption is an important symptom of mental suffering in this disease.

This deserves separate discussion both as hallucinatory disorder and as simple sensory alteration, since it characterizes *phrenitis* throughout its history and engenders important theoretical debates. In the earlier, classical sources these impairments are not opposed to or even categorically distinguished from cognitive ones, but belong to the core of the psychopathological portrayal. At *Epid.* 5, 52 (24.6–7 Jouanna = 5.236 L.) (= *Epid.* 7, 71, 92.13–14 Jouanna = 5.432 L.), for example, a patient is introduced as ‘blind due to *phrenitis*’ (*to kōphōma ek phrenitidos*); *kōphōma* in these texts is a less clear-cut experience than our term ‘blind’ suggests,<sup>20</sup> but a long-lasting disturbance in vision, caused by our disease, is patently in question. Vision is apparently distorted and its sensitivity intensified, as with floccillation: *Prorrh.* I, 5 (75.10–11 Polack = 5.512 L.) informs us that ‘their dreams are especially vivid’ in phrenitic patients (*enyypnia ta en phrenitidi enargē*).<sup>21</sup> This sign relates to sight: dreaming and seeing are notoriously contiguous

<sup>19</sup> See Byl and Szafran (1996) 99.

<sup>20</sup> See Thumiger (2017) on the degree of sensory impairment and disability in these texts.

<sup>21</sup> The concept is repeated at *Coac.* 89 (124.14 Potter = 5.602 L.).



in Greek vocabulary and imagination, and feature importantly in Galenic psychology.<sup>22</sup>

The discussion of hallucination, which would be the richest in association with *phrenitis* in the Hippocratic texts, at *Morb.* 2.72 (Jouanna 211.15 = 7.110 L.), is philologically problematic. Both manuscripts M and  $\theta$ , duly followed by Jouanna, offer *phrontis* ( $\phi\rho\nu\nu\tau\acute{\iota}\varsigma$ ), ‘anxiety’, rather than *phrenitis* ( $\phi\rho\varepsilon\nu\acute{\iota}\tau\iota\varsigma$ ) here. Potter, however, in the Loeb text corrects the passage in a forced manner that converts it into an account of our disease, printing  $\phi\rho\varepsilon\nu\acute{\iota}\tau\iota\varsigma$ .<sup>23</sup> The opening is unique among the surviving descriptions of the disease and resembles other Hippocratic passages depicting derangement: it starts with patients feeling that ‘a thorn (*akantha*) seems to be in the inward parts and to prick them; loathing (*asē*) attacks the patient, he flees light and people, he loves the dark, and he is seized by fear . . . the patient is afraid, and he sees terrible things, frightful dreams, and sometimes the dead’. Nor is vision mentioned in these sources as the only area impaired in phrenitics, although it is the most important of the senses: at *Coac.* 95 (124.25–26 Potter = 5.602–04 L.) the portrait of the phrenitic patient is expanded to include ‘being over-sensitive to noise (*psophou kathaptomenoi*)’ as an indicator for the onset of ‘trembling and convulsion’.

Many of the disparate signs displayed by phrenitic patients are found clustered in *Prorrheticon* 1, a text that offers many aphorisms regarding mental health. These instances are important because they allow us to begin to construct a picture of the disease in which frequent signs appear, signs which might not be exclusive but recur in a meaningful way. In a discussion involving the neck and throat at *Prorrh.* 1, 1, this telling question is posed: ‘Do patients who have been comatose at the beginning, but later lie awake with pains in the head, loins, *hypochondrium* and neck, develop *phrenitis*?’ (75.2–4 Polack = 5.510 L.). Neck and head, as well as the diaphragmatic location, come into play, apparently along with a general link to cold-like ailments: a bit later we read that ‘a running nose in these is a fatal sign, especially if it begins in the fourth day’.<sup>24</sup> At *Prorrh.* 1, 2 (76.4–6

<sup>22</sup> See Chapter 5 (p. 151).

<sup>23</sup> See below (p. 50) on the interpretation of this as a passage about *phrenitis*.  $\phi\rho\nu\nu\tau\acute{\iota}\varsigma$  – here ‘worry, trouble, anxiety’ – moreover, is uncommon as a name for a disease and indeed appears only in a cryptic passage in *Epid.* 6, 5, 5 (110.2 Manetti–Roselli = 5.316 L.). On the other hand, as a description of *phrenitis* this passage would be even more exceptional within classical medicine for the elaboration regarding psychological aspects (fear), the loathing of light, and the hallucinatory quality of the illness, and it is better taken as an instance of retrospective psychologizing on Potter’s part.

<sup>24</sup> Moreover, the partly interdependent passage at *Coac.* 175 (144.16–18 Potter = 5.622 L.): ‘Do patients who are comatose at the beginning of their fever, and who lie awake with pain in the head, loins, *hypochondrium* and neck, develop *phrenitis*? That a nostril passes drops of blood in these is a fatal

Polack = 5.512–14 L.) the localization of the affection in the throat is related to our disease. The whole aphorism reads: ‘Slight, suffocating pains in the throat, felt on opening the mouth by a person with an acute disease who cannot close it easily and is feeble, announce derangement (*parakroustikon*); those with *phrenitis* are doomed’.<sup>25</sup> Here patients with the disease are in an especially weak position if they suffer from ailments of the neck and throat.

At *Coac.* 223 (156.25–26 Potter = 6.632 L.) *phrenitis* is mentioned as associated with symptoms that are eminently mental: ‘Fixation of the eyes in an acute disease, or a sharp movement of the eyes together with disturbed sleep or sleeplessness, sometimes also provokes a haemorrhage from the nostrils. Such patients who are not burning hot to the touch become *phrenitic*, especially if a haemorrhage occurs’. These shifting clusters or patterns lack the coherence of a consistent nosological account, but details begin to coalesce around a few points that become the backbone of the disease in later nosology. It is important at this stage to note that a localization around the chest and throat, the respiratory process and its bodily parts, seems to dominate.

#### *Aetiology and Additional ‘Co-factors’*

References to patient profiles are rare in the Hippocratic sources in all cases. When *phrenitis* is involved, there are only a handful of such references. At *Aph.* 3.30 (408.11–13 Magdelaine = 4.500 L.) we read that *phrenitis* (like many other diseases) tends to occur after age twenty-five, and at *Prorrh.* I, 9 (76.2 Polack = 5.512 L.) that ‘*phrenitic* illnesses in the young end with spasms’. At *Aph.* 7.82 (475.11–13 Magdelaine = 4.606 L.) there is a distinction in the prognosis of the disease between middle-aged and younger subjects: ‘If *phrenitis* attacks those beyond forty years of age, they rarely recover; for the risk is less when the disease (*hē nosos*) belongs to one’s constitution (*oikeiē tēs physios*) and to age’ – which seems a reasonable observation, to be extended to other diseases as well. Otherwise, there is no reference to age and no pattern in terms of gender in cases of this disease.

sign, especially if it is on the fourth day or at the beginning. A very red discharge from the cavity is also bad.’

<sup>25</sup> In this connection, cf. also *Coac.* 269 (166.28 Potter = 6.642 L.).

The question of aetiology is also complex and marred by the pitfalls of anachronism. A precise, systematic account of causes as a fundamental chapter in pathology is not necessarily a feature of nosology at this stage in ancient science, when clinical description and collation of signs and symptoms (and, in second place, prognosis and therapeutics) occupy the most space. But there is some consistency in the limited information the Hippocratics give in this regard – or rather a number of fixed explanatory patterns: *phrenitis* ‘arises from bile (*hypo cholēs*) when, having been set in motion, it settles against the inward parts and the diaphragm (*pros ta splanchna kai tas phrenas prosizēi*)’, according to *Aff.* 10 (20.6 Potter = 6.218 L.). At *Aff.* 12 (22.11–16 Potter = 6.220 L.) the conversion from a simple winter fever to acute diseases such as *phrenitis* is better illustrated in terms of cause and consequence: ‘When, with phlegm and bile set in motion, what is beneficial is not administered to the patient’s body, the phlegm and bile collect together and fall upon *some chance part* (*hēi an tychei*) of the body, and *pleuritis* or *phrenitis* or *peripleumoniē* result.’ Bile and phlegm are here the culprits, but the locus afflicted varies.<sup>26</sup>

*Diseases* 1.30 (86.19–88.13 Wittern = 6.200 L.), by contrast, presents *phrenitis* in a haematocentric frame. Here as well, however, bile is primarily to blame: ‘When bile that has been set in motion enters the vessels and the blood, it stirs the blood up, heats it and turns it into serum, altering its normal consistency and motion; now the blood heats the rest of the body too’. Derangement and high fever follow. At *Morb.* 1.34 (92.7–18 Wittern = 6.204 L.) the decline towards death in *phrenitis* is explained as mostly caused by lack of nourishment, since the patients, being deranged (*paraphroneontes*), accept no food and waste away. At the origin of the cold, fever and pain is the fact that ‘when the blood in the vessels is cooled by the phlegm, it migrates and contracts into a mass at one time in one part, at another time in another part, and trembles. Finally, everything becomes cold and the person dies.’ Here phlegm is the pathogen.

In sum, the direct cause or pathological picture, when given, seems to be humoral: in most versions it is bile pressing against sensitive body parts, but it can also be phlegm (and bile) stirring the blood up and heating it, or phlegm alone cooling the blood excessively. When we read at *Prorrh.* I 31 (78.7–8 Polack = 5.518 L.) that ‘what is salivated in cases of *phrenitis* with chills is vomited back up dark’, dark humours seem to be implied.

<sup>26</sup> On the difficulty in establishing causation in Hippocratic nosology, see Roselli (2018) 185–86.

*Therapy and Prognosis*

In these earlier sources, therapy for *phrenitis* is not always addressed in our sources as part of the discussion of the disease. One informative passage in this respect, however, is *Aff.* 10 (18.20–21 Potter = 6.216–18 L.), where *phrenitis* is treated as a disease of the central body cavity. The instructions are as follows: ‘For the pain, treat the patient with the same measures as in pleurisy’, that is, with ‘a medication to remove phlegm and bile’ from the painful area; ‘clean the cavity downwards by giving a medication and cooling it with an enema . . . ; administer drink and gruel’ (14.18–16.2 Potter = 6.214 L.). For *phrenitis*,

give a medication for the cavity, and conduct the rest of the treatment along the same lines, except with regard to drink. As drink, give anything you wish except wine; give vinegar, honey and water, or water alone. Wine, however, does not benefit a deranged mind . . . It is of benefit in this disease to wash with copious hot water from the head downwards. For as the body is softened, sweating increases, the cavity discharges, urine passes, and the patient gains more control over himself. (18.20–20.5 Potter = 6.218 L.)

The connections between the therapy for *phrenitis* and that for related winter-chest diseases are evident at *Nat. Hom.* 5 (212.4 Jouanna = 6.78 L.), where we read that emetics and clysters – both purging methods – are to be used in periods when more phlegm is engendered, such as winter, when ‘diseases that attack the head and the region above the diaphragm, *phrenes*’, occur.

A second instructive passage, along similar lines, is *Morb.* 3.9 (76.24–27 Potter = 7.128 L.): ‘Warm this patient with moist fomentations and with drinks other than wine. If he can stand up, cleanse him upwards; he must bring up material by coughing and expectoration just as in *peripleumoniē*. If he fails to do this, prepare the lower cavity in order to evacuate it. Moisten the patient with drink, for that helps.’ Purging and cleansing the body cavities is central, as is the diaphragmatic location.<sup>27</sup>

The clinical texts do not add much in the way of a clear protocol for *phrenitis*: the phrenitic butcher in Acanthus in *Epid.* 5, 52 (7, 71), 24.6–9 Jouanna = 5.236–38 L. (92.13–17 Jouanna = 5.432 L.), who developed

<sup>27</sup> In addition, some of the guidance found in *Regimen in Acute Diseases* obviously applies to *phrenitis*, which is there treated together with pleurisy, pneumonia and ardent fever (*Acut.* 5, 37.21–38.1 Joly = 2.232 L.). One might also compare *Acut.* 23 (46.3–7 Joly = 2.274 L.), where a prescription for a ‘pain under the diaphragm’ (*hypo phrenas* . . . *to algēma*) is offered: ‘Soften the bowel with black hellebore or peplium, mixing it with black hellebore, daucus, *seseli*, cumin, anise or another fragrant herb, and with the *peplum* juice of silphium.’

a hump (*kyphōma*) after *phrenitis*,<sup>28</sup> is treated with what appear to be soothing measures: ‘No drugs helped, but red wine and eating bread, refraining from bathing, being massaged with restraint, and being warmed without much fomentation but gently.’ At 7, 71 there are more details about ‘being rubbed with oil, warming the back, not excessively, by means of a small, gentle fire’.

### Competing Localizations

Some of the quotes above, which describe therapy to the head and chest alike, nicely illustrate the problematic juxtaposition of chest and head vis-à-vis *phrenitis*, despite its deep-seated connection with the cavities of the torso. This topic is central to the history of the disease and very influential in the development of Western psychiatry. Indeed, it runs through the whole history of *phrenitis* and will emerge as a leading theme in our reconstruction of it in this book.<sup>29</sup>

The location in the chest is dominant in the Hippocratics, with an obvious association with winter diseases localized in the torso as the affected area. This is evident in the involvement of the respiratory system (as we would define it), as is also the case with *pleuritis* and *peripleumonīē*, and in the general location of the *phrenes* in the chest (whether we interpret them as the diaphragm or identify them more vaguely with the body cavities of the upper chest), here intended in an entirely material sense as ‘body part’. The association of chest, breathing and breathing affections with cognitive implications, which is traditional in Greek medicine from an early date, is also important here.<sup>30</sup> This localization explains the link between expectoration full of mucus and derangement found in some texts, most clearly at *Prorrh. I*, 6 (75.11–12 Polack = 5.512 L.): ‘Frequent expectoration, if another sign is present as well, indicates *phrenitis* (*anachrempsis pyknē ge, ēn dē*

<sup>28</sup> Jouanna translates ‘gibbosité’. The term alludes to a humpback, or perhaps more generally to an abscess of some kind. This is suggestive of the involvement of the back in cases of *phrenitis* and evokes parallels with the inflammation of the spinal membrane, described by Asclepiades and his followers (see below, p. 66), and of the encephalic tumour/*apostēma* which will become synonymous with *phrenitis* in the post-antique era. This is, however, an isolated instance in the Hippocratic sources.

<sup>29</sup> See on this more precisely Thumiger (2021a). Pigeaud (1981/2006) 77–82 already highlights the problem of *siège* in discussions of the disease.

<sup>30</sup> In a medical environment, theories of respiration offer relevant testimony in this regard; see Debru (1996) 43–48 on respiration and cardiocentrism, 254–56 on respiratory exercises with a ‘spiritual’ effect; Thumiger (2017) 36–39 on the chest, and 102–07 on respiration; Langholf (1990) 42–48 for a medical and cultural-historical survey of the chest and mental life in Greek thought.

*ti kai allo sēmeion prosēi, phrenitika*).<sup>31</sup> It should not be forgotten that *peripleumoniē* too can cause derangement, as described at *Morb.* 3.15 (82.22–25 Potter = 7.136 L.) as part of a picture that shares a great deal with that of *phrenitis*: ‘There is violent fever, and the patient’s breathing is rapid and hot; he is distraught, weak, and restless (*aporiē, kai adynamiē, kai riptasmos*), and beneath his shoulder blade he suffers pain that radiates toward his collarbone and nipple. He has a heaviness in the chest, and he is deranged (*paraphrosynē*).’

Second, the hypochondriac affiliation, as is most evident in *Aff.* 10 (18.14–20.11 Potter = 6.216–18 L.):<sup>32</sup> ‘In *phrenitis*, there are at first mild fever and pain over the *hypochondrium* . . . *phrenitis* arises from bile, when, having been set in motion, it settles against the inward parts and the *phrenes*.’ As the name obviously suggests, this area of the body (here *phrenes*, elsewhere *hypochondrion*) most often emerges as the pathological place in the course of this illness, although it is unclear what function would be impaired as a consequence. This point is explored in the next paragraph, but it is obvious that the name and various discussions of the disease point to a central role for the diaphragm and the upper cavity of the torso, where the lungs and the heart are located.

Third, the link with the torso also includes lower, gastric and hypogastric localizations. This appears to be a possibility at *Coac.* 405 (204.26–28 Potter = 5.676 L.): ‘If persons with pain in the side (*meta pleourou algēmata*) who do not have pleurisy evacuate favourably thin stools, they turn out to be phrenitic.’ The liver is also important, although it is never mentioned directly as a body part affected by *phrenitis*. The *phrenes*, in fact, are often described as intersected by the vein that leads to the liver, and the author of *Int.* 48 (230.18–236.20 Potter = 7.284–88 L.), who describes the mental effects of a swollen liver pressing against the diaphragm, is in line with the tradition which makes the liver the seat of the appetitive soul. This tradition runs from Plato to Galen’s re-elaboration<sup>33</sup> and is rooted in

<sup>31</sup> Cf. *Coac.* 239 (160.24–25 Potter = 5.636 L.) to the same effect. For the ‘cardiocentric’ – or, rather, chest-centred – direction, cf. *Epid.* 6, 3.22 (74.1 Manetti-Roselli = 5.304 L.): ‘globular, thick’ (literally ‘round’) expectoration from the mouth related to insanity (*ta strongyloomena ptyala parakroustika*), and *Epid.* 6, 6.9 (134.7–9 Manetti-Roselli = 5.328 L.): ‘Globular expectorations lead to insanity, as in the case in Plinthius. He had a haemorrhage from the left nostril, and on the fifth day he was cured (*ta strongyloomena ptyala parakroustika, hoion to en Plynthiōi, toutōi hēimorrhagēsen ex aristerou, kai elythē pemptaiōi*).’

<sup>32</sup> See van der Eijk (2015) on the history of this body part as *locus affectus*, and of the disease concept ‘hypochondria’.

<sup>33</sup> Plato, *Timaeus* 70a1, 70a4, 70e1, 77b4, repeating the concept of the diaphragm as a lower border of the seat for the appetitive soul separating it from the nutritive – a scheme adopted by Galen in *PHP*, especially Book 3 (168–232 De Lacy = 5.249–87 K.); cf. 422.4 De Lacy = 5.575 K., 534.35 De Lacy =

a vast popular tradition.<sup>34</sup> It was not only the whole chest, then, that was a mental centre in Greek culture as important as, or even more important than, the head;<sup>35</sup> various parts of the torso, from the upper, cardiac cavity to the gastric area, were also fundamental.

Fourth, the head (as a whole comprising skull, membranes, brain and face, or with particular reference to only one of these parts) or *caput* (by which I mean the uppermost section of the body, as its general termination in an upward direction) is clearly implicated. Headache as a symptom<sup>36</sup> is of great interest, since it underlines the anatomical dissonance that constitutes the backbone of the history of our disease: *phrenitis* is localized in the chest, but is also accompanied by head-and-neck symptoms.<sup>37</sup> Intriguingly, clinical material – the patient descriptions – rather than doctrinal nosology yields the most information regarding the head as affected in our disease. At *Epid.* 7, 112 (112.3–9 Jouanna = 5.460 L.) Polyphantes of Abdera has an illness characterized by a ‘phrenitic derangement’ which includes ‘continuous headaches’ (112.5–6 Jouanna = 5.460 L., *ou pauomenou de tou algēmatos tēs kephalēs*), as does the next patient, the maidservant of Eualcides, who had headaches (112.10–13 Jouanna = 5.460 L.). She ‘became phrenitic and died with powerful convulsions’. So too at *Epid.* 3, 17, case 4 (98.3–4 Jouanna = 3.118 L.) a phrenitic patient (*ho phrenitikos*) has ‘painful heaviness of the head and neck’.

Headache itself as a pathological entity is thematized in *Coac.* 116 (130.3–4 Potter = 5.608 L.), where headache in acute fevers is said to develop into *phrenitis* (*es to phrenitikon periistatāi*) unless there is a haemorrhage through the nostrils. The connection with the head is also reinforced visually: at *Coac.* 210 (154.5–6 Potter = 5.630 L.) ‘contraction of the forehead (*metōpou synagōgē*)’ is *phrenitikon*, a phrenitic sign, in association with the idea that ‘a good colour of the face in association with sullenness in acute disease (*prosōpou euchroia kai skythrōpotēs en oxēi*) is a bad sign’.

Finally, in delocalized terms blood can also be seen as a *locus* of the disease. This episodic doctrine is specific to the haematocentric views exposed in *Diseases I*, which discusses aetiology, as we have already seen. In *Morb.* 1.30 (86.19–88.4 Wittern = 6.200 L.), for example,

5.716 K. At *PbP* 6.848–76, 418–25 De Lacy = 5.568–77 K., Galen comments at length on the Hippocratic importance of the diaphragm in descriptions of the veins and liver.

<sup>34</sup> See Onians (1951) 84–89, 505–06 for a representative discussion.

<sup>35</sup> See the use of bodily terminology (e.g. *phrēn*, *prapides*, *thymon*, *stēthos* and *splanchna*) separate intellectual organs in the pre-Socratics.

<sup>36</sup> I use ‘symptom’ here for signs that are subjective in origin as opposed to observable, although all these are filtered through the understanding and presentation of the doctor.

<sup>37</sup> Byl and Szafran (1996) 101 also note this.

*Phrenitis* is as follows: the blood in a human being contributes the greatest part to intelligence . . . (*pleiston xymballetai meros synesios*) . . . Therefore, when bile that has been set in motion enters the vessels and the blood, it stirs the blood up, heats it and turns it into serum . . . Due to the magnitude of his fever, and because his blood has become serous and abnormal in its motion, the person loses his wits and is no longer himself.

*Morb.* 1.34 (92.7–9 Wittern = 6.204 L.) elaborates on this, basing its explanation on the corruption of blood: ‘Inasmuch as [phrenitics] blood is corrupted and does not move in its normal way (*hate tou haimatos ephtharmenou te kai kekinēmenou ou tēn eōthuian kinēsin*), they are deranged throughout the disease . . .’ Can this isolated but representative circulatory account be interpreted as a more holistic option?

These should not be seen as contradictory or rival doctrines, or as uncertainties in medical explanations of the disease. As van der Eijk explains with reference to the more theoretical question of the discordant ‘theories of mind’ traceable in the Hippocratic Corpus, these different models are scarcely exclusive<sup>38</sup> and can in fact coexist in the same account. Even the simplified dialectic encephalocentrism-cardiocentrism plays a deeper role in our disease.

#### *The Elusive Connection: phrenes, phrenitis and Mental Life*

The dominant localization of *phrenitis* points to the region of the body to which the *phrenes* belong, as their name suggests (although *hypochondrion* is sometimes used instead): the ‘diaphragm’, the sheet of muscle which in modern anatomy separates the thoracic cavity that contains the lungs and the heart from the gastric cavity, and which plays a role in respiration by contracting, increasing the lungs’ volume and allowing them to be filled with air. This is a visually detachable part of the body,<sup>39</sup> tears or perforations of which can impact the respiratory functions, causing orthopnea (shortness of breath when lying down, and coughing).<sup>40</sup> As observed in Chapter 1, however, *phrenes* is also synonymous with mental life and mental soundness in classical Greek, and is a very common term which ties in with another fundamental of the disease *phrenitis*, its mental quality.

<sup>38</sup> Van der Eijk (1995/2005) 124–25.

<sup>39</sup> The claim at *Epid.* 2, 4.1 (64.17–18 Smith = 2.122 L.) that the *phrenes* are ‘not easy to separate’ (*ou rhēdion chōrisai*) – from the liver, or one lobe from the other – confirms their add-on appearance (see Figs. 1.1, 1.2, 1.3 below, pp. 13–15).

<sup>40</sup> See Broder (2011) for an overview from the point of view of contemporary medicine; Karmy-Jones and Jurkovich (2004) on chest trauma. At *Epidemics* 5, 95 (42 Jouanna = 5.254 L.) and 7.121 (116–17 Jouanna = 5.466 L.) a case of a mortal diaphragm wound is reported.



A combination of the following moves is thus key to explaining and assessing the localization of our disease: first, an association between *phrenes* as body part and *phrenitis*; second, an emphasis on the disease as mental; third, a contextual awareness of the *phrenes* as an organ of mental life or a metaphorical expression to indicate the mind. We shall see that these three points are never combined in early texts, which is surprising, as is the avoidance of (*para*)*phronein* and other cognates of *phren-* to describe the mental import of the illness. Let us consider three points one after the other, in order to explore their overlap: (1) the general notion of *phrenes* as body part in the Hippocratic texts; (2) reference there to a role of the *phrenes* in *phrenitis* in a mere locative sense, unconnected with the mental sphere, particularly in relation to vitality; (3) reference to a role of the *phrenes* in mental pathology, especially in *phrenitis*.

### *The Notion of phrenes in the Hippocratic Texts*

As noted in Chapter 1, the noun *phrēn/phrenes* traditionally had two senses, which are often indistinguishable in archaic literature: a place in the body, with a locative-anatomical and strictly physiological meaning (the diaphragm; either the upper or the gastric cavity in the torso; the chest in general), on the one hand, and the mental faculties and/or a person's character and 'self', on the other. In our texts, in exact countertendency to all other literature of the period, *phrenes* – the singular *phrēn* appears only once – is rarely employed in the second sense, whether in association with *phrenitis* or not.

At first glance, it might appear striking that this otherwise common noun, a stock term for the mind in archaic and classical literature, is not central to discussions of mental pathology in the Hippocratic sources. The datum appears less surprising if we consider that these texts systematically avoid association with traditional concepts and formulations.<sup>41</sup> Indeed, the term *phrenes/φρένες* is mentioned and not avoided: it is the selectiveness of the usage that is significant. Not only do Hippocratic discussions of mental life and its disorders ignore the traditional 'Homeric' sense of *phrenes* as the seat of emotions and thought, as well as a bodily location, but even in descriptions of the disease *phrenitis* itself the *phrenes* appear in indirect, almost reluctant association.<sup>42</sup>

### *Non-Mental phrenes in the Hippocratic Texts*

Most Hippocratic uses of *phrēn/phrenes* are devoid of any association with the mental – or indeed with *phrenitis* – and clearly refer to an anatomical

<sup>41</sup> See Thumiger (2017) 421.

<sup>42</sup> For a discussion of this term in the Hippocratic texts, see Langholf (1990) 40–42.

part, the diaphragm. The emphasis is on its ‘partitioning’ function, its position as ‘dia-phragm’ between the upper and lower cavities of the torso and its intermediate location with respect to the main veins flowing from the heart down through the liver. At *Vet. Med.* 24 (152.13–15 Jouanna = 1.634 L.) the nature of the *phrenes* is described as similar to that of other tissues rich in blood, such as the liver, insofar as they are exposed to pain and alterations (e.g. abscesses or tumours): ‘Violent pain, but much less severe, is also felt under the diaphragm (*hypo phrenas*). For the diaphragm is an extended, broad, resistant substance (*diatasis . . . phrenōn plateiē kai antikeimenē*), of a stronger and more sinewy texture, and so there is less pain. But here too pain and tumours occur.’

As might be expected, different treatises and topics reflect different interests in the diaphragm. In *On Joints* the anatomical part under the ribs is in question, as also (one is led to believe) at *Artic.* 41 (164.3 Kühlewein = 4.176 L.; 164.14 Kühlewein = 4.178 L.), where ‘above the *phrenes*’ (*anōterō tōn phrenōn*) indicates the position of a malignant lump in the spinal vertebrae.<sup>43</sup> Elsewhere, respiration is emphasized: at *Progn.* 5 (14.4 Jouanna = 2.122 L.) we read that ‘rapid respiration indicates pain or inflammation in the parts above the diaphragm, *hyper tōn phrenōn*’. *Coac.* 255, 164 Potter = 5.638 L. argues that ‘frequent and shallow breathing indicates an inflammation and pain in the parts above the diaphragm (*en toisi hyper tōn phrenōn topoisi*). If breaths are deep and come at long intervals, they indicate a disordering of the mind or convulsions (*paraphrosynēn ē spasmon*); if they are cold, they signal death.’

Anatomically, the gastric and lower cavities are also referenced for the sake of their position relative to the *phrenes*. At *Progn.* 12 (35.2–5 Jouanna = 2.142 L.) persistently thin, crude urine suggests an abscess in the area below the diaphragm (*es ta katō tōn phrenōn chōria*), while at *Aph.* 4.18 (413.3–4 Magdelaine = 4.506 L.) ‘pains above the *phrenes*, *hyper tōn phrenōn*, indicate the need for upward purging’. At *Breaths* 10 (118.8 Jouanna = 6.106 L.) *ho phragmos tōn phrenōn*, ‘the closure of the *phrenes*’, works as a barrier impeding the upward flux of fluids in the body.

The sensitivity of the *phrenes* and the danger represented by pain in this area<sup>44</sup> – the topic of sensitivity, which already emerged above – are

<sup>43</sup> The anatomical indication is used at *Artic.* 41 (165.15 Kühlewein = 4.180 L.) *katōterō tōn phrenōn* (below the diaphragm). Cf. in the same spirit *Mochl.* 1 (4.342 L.) *achri phrenōn* (as far as the diaphragm); *Mochl.* 37 (4.380 L.) *anō phrenōn* (above the diaphragm).

<sup>44</sup> See also *Acut.* 21 (45.23–24 Joly = 2.272 L.) on pain in the upper chest, including *hyper tōn phrenōn*, as requiring venesection, and *Acut.* 22 (46.3 Joly = 2.274 L.). Phlebotomy is also recommended at *Acut.*

described at *Progn.* 19 (54.6–55.1 Jouanna = 2.164 L.): ‘Pains occurring with fever in the region of the loins and lower parts, if they leave the lower parts and attack the diaphragm (*ēn tōn phrenōn haptontai*), are very deadly’, if other bad symptoms supervene. ‘But if, when the disorder jumps to the diaphragm, the other symptoms that supervene are not bad, confidently expect an *empyēma* (a pocket of pus accumulated inside a body cavity).’ A primary affection moving to the *phrenes*, as opposed to a momentary reaction, is deadly.

In a discussion of barley gruel at *Acut.* 5 (42.14–15 Joly = 2.258 L.) it is said that gruel should not be offered to a stomach that is full: the consequence will be that ‘it dries the lung, besides causing discomfort in the *hypochondria*, the hypogastrium and the diaphragm (*phrenes*)’. At *Aph.* 7.54 (-469.10–470.2 Magdelaine = 4.594 L.) pain is associated with the indication of a space or cavity in cases ‘where phlegm is confined between the midriff and the stomach, causing pain because it has no outlet into either cavity’.

Finally, the *phrenes* are often mentioned in order to identify the relative position of vessels in the torso. In the *Epidemics* (where, interestingly, the traditional term is otherwise avoided), at 2.4.1 (62.12 Smith = 5.120 L.) the liver vein is said to reach the heart through the diaphragm (*dia phrenōn*), while at 2.4.1 (64.17–18 Smith = 2.122 L.) *phrenes* are said to be attached to the liver and difficult to separate from it. Later, at 2.4.1 (64.20–22 Smith = 5.124 L.), *phrenes* are localized ‘at the vertebra below the ribs where the kidney separates from an *artery*’,<sup>45</sup> and are said to ‘bestride the *artery*’; many branching veins are described as running through the diaphragm (*dia tōn phrenōn*), and so forth, with various similar remarks about position with respect to the liver and spine and the presence of blood vessels. In *Loc. Hom.* 3 (42.7–11 Joly = 6.282 L.) the *phrenes* are also mentioned in order to pin down the position of vessels, here the *vena cava* (*hē . . . koilē phlēps*), which ‘passes over the surface/through (?) the *phrenes* and the heart, between the two halves (?) of the *phrenes*’ (42.8–11 Joly = 6.282 L., *metaxy tōn phrenōn*).<sup>46</sup> At *Morb. Sacr.* 3 (11.20–21 Jouanna = 6.366 L.) the vein

(*sp.*) 4 (69.19–20 Joly = 2.400 L.) for swelling of the *hypochondria*, tensions (*entusias*) of the *phrenes* from the stoppage of air, and other complaints in the chest and gastric area; *Acut.* (*sp.*) 34 (85.9–10 Joly = 2.466 L.) ‘those who have pain in the diaphragm’, *apo tōn phrenōn*. At *Acut.* (*sp.*) 57 (94.2–6 Joly = 2.510 L.) ‘affection that produces pain in the thorax above the diaphragm (*hyper tōn phrenōn*)’ or ‘in the lower cavity below the diaphragm (*hypo phrenas*)’ is considered.

<sup>45</sup> For the Greek *artēria* sometimes the translation ‘windpipe’ is to be preferred; here the term indicates however the blood vessel, distinguished from the vein (*phlēps*)

<sup>46</sup> Cf. later *Loc. Hom.* 3 (42.18 De Lacy = 6.282 L.); *Carn.* 5 (191.25 Joly = 8.590 L.).

running from the liver is also said to ‘stretch upwards toward the *right diaphragm* and lung (*dia tōn phrenōn kai tou pleumonos tōn dexiōn*)’.

### *The Vitality of the phrenes*

The vital relevance of the *phrenes* is also noticeable. At *Coac.* 107 (128.1–4 Potter = 5.604 L.) it is a deadly sign in patients with a fever when ‘pains arising in the loins and the lower parts . . . seize the diaphragm at the same time they resolve through the lower parts (*ekleipousai ta katō*)’: disturbance to this part is definitely fatal. At *Aph.* 6.18 (452.1–2 Magdelaine = 4.566–68 L.) the *phrenes* are one of the body parts where wounds are deadly (along with other organs; repeated at *Coac.* 499, 230.3–15 Potter = 5.698 L.), while *Morb.* 1.3 (6.18–8.1 Wittern = 6.142–144 L.) declares that injuries ‘in the brain, spinal marrow, cavity, liver, *phrenes*, bladder, blood vessel or heart’ are bound to cause death.<sup>47</sup> *Phrenitis* in pregnant women is also inevitably fatal (*Morb.* 1.3, 8.3–7 Wittern = 6.144 L.).

Sensitivity and vitality obviously indicate the relevance of *phrenes* to mental life, especially in the biological frame of the materialistic concept of the soul in ancient medicine. The strongest indicator of this is, *e contrario*, given by the author of *Sacred Disease* as he forcefully and explicitly refutes the notion that the mental faculties should be located in the *phrenes* (*Morb. Sacr.* 17, 30.3–17 Jouanna = 6.392 L.):

Wherefore, I say that it is the brain which interprets the understanding. But the *phrenes* (= the diaphragm) have obtained their name from *accident and usage* (*tēi tychēi . . . tōi nomōi*), and not from *reality or nature* (*tōi eonti . . . tēi physei*), for I know no power which it possesses, either as to sense or understanding, except that when a man is affected with unexpected joy or sorrow, it *throbs* and produces *palpitations*, owing to its *thinness*, and since it has no belly to receive anything good or bad that may present itself to it, it is thrown into commotion by both of these, due to its natural weakness. It then perceives beforehand none of the things which occur in the body, but *has received its name vaguely and without any proper reason*, like the parts about the heart, which are called auricles, but which contribute nothing towards hearing.

This intriguing passage shows full awareness that the etymology is unreliable, and explicitly attacks the traditional psychological interpretation of

<sup>47</sup> That the *phrenes* were part of this list of vital or important parts, is confirmed by the mention of them in the (somewhat random) list in *Alim.* 25 (81.13 Heiberg = 9.106.14 L., *phresi*). Cf. the later evidence of Celsus, *Med. Proem.* 42 (24, 8–10 Marx): ‘As soon as the knife penetrates the chest by cutting through the transverse septum, a sort of membrane which divides the upper from the lower parts (the Greeks call it *diaphragma*), the individual loses his life at once (*simul atque vero ferrum ad praecordia accessit et discissum transversum saeptum est, quod membrana quaedam est quae superiores partes ab inferioribus <di>ducit* (ΔΙΑΦΡΑΓΜΑ Graeci vocant) *hominem animam protinus amittere*)’.

the *phrenes*, which are here clearly identified with the membrane of the diaphragm (as the reference to their thinness and throbbing suggest). The author claims that they are *affected* by the individual's emotions and are not their *origin*, hence their apparent reactivity in moments of distress.

In *Morb. Sacr.* 7 the term *phrenes* returns as a simple location that explains the discharge of excrement during epileptic attacks: 'The liver and upper bowel are forced against the *phrenes* (*pros tas phrenas*), and the mouth of the stomach is intercepted' (16.8 Jouanna = 6.374 L.).<sup>48</sup> So too at *Morb.* 3.14 (82.7 Potter = 7.134 L.), in cases of *ileus* it is recommended that one cleanse the upper cavity and 'cool the region above the *phrenes* (*ta anō tōn phrenōn*)'. *Morb.* 3.16 (86.22–96.12 Potter = 7.142–56 L.) is devoted to forms of *pleuritis*, which are diseases contiguous to *peripleumoniē* and *phrenitis*, as was noted, with similar therapeutic recommendations (as explicitly at 90.9–10 Potter = 7.146 L.). The following therapy, for example, is described: drying the thorax by wrapping it in a plaster soaked in moist Eretrian earth, and then cauterizing or incising 'as close to the *phrenes* as possible, but sparing the *phrenes* themselves' (94.25–28 Potter = 7.154 L.).

This importance of the *phrenes* in regard to vitality and survival,<sup>49</sup> as well as the importance assigned them by medical (and non-medical) authors generally, I suggest, shows the persistent weight and silent influence of the archaic meaning of the word as the larger upper torso region (lungs, heart, and the area more generally) that serves as the seat of life and consciousness in early literary sources.<sup>50</sup>

### Mental phrenes?

Direct or exclusive references to *phrenes* as a mental organ are very rare in the Hippocratic texts, and Langholf is right, at least for the majority of cases, to define such occurrences as 'conventional'.<sup>51</sup> The non-bodily use of *phrenes* as 'mind' or 'mental soundness' appears in *Regimen in Acute Diseases* (*sp.*) 1 (68.11–12 Joly = 2.396 L.) in an expression indicating the

<sup>48</sup> For more anatomics, see *Anat.* 1 (6.5–6 Potter = 8.540 L.), locating the *phrenes* 'against the backbone behind the liver'; *Oss.* 1 (16.1–18.2 Potter = 9.168 L.), describing the position of the liver; *Oss.* 2 (18.3–9 Potter = 9.168–70 L.) on the vein cutting through the *phrenes*, as well as *Oss.* 7 (22.8 Potter = 9.172–74 L.; 22.23 Potter = 9.174 L.); *Oss.* 10 (28.8–10 Potter = 9.178 L.) on the liver vein cutting through the *phrenes*. This section actually contains a digression on the *phrenes* and the vessels that cut through or envelop them, and on their not being easily separable from the liver (30.8–9 Potter = 9.180 L.). See also *Oss.* 14 (38.8–14 Potter = 9.186 L.), 18 (46.8–11, 18–20 Potter = 9.194.13, 20 L.); Erasistratus (fr. 230.8 Garofalo *ap.* Galen *Loc. Aff.* 5.3, 8.317 K.).

<sup>49</sup> The later treatise *Seven* 79 (3).5–6 Roscher = 8.672.24 L.) includes a use of *phrenes* that refers to the part of the body through which the heat passes as life departs the body.

<sup>50</sup> See Onians (1951) 23–31.

<sup>51</sup> Langholf (1990) 40–41. On *phrenes* in these texts, see also Matentzoglou (2011) 46, 153, 213.

patently mental symptom ‘derangements of the mind’, *parallaxies phrenōn*. The disease in question here is less fully specified than *phrenitis*, although it may include it: a burning fever (*kausos*). At *Prorrh. II*, 9 (244.II–27 Potter = 9.28 L.) the *phrenes* are mentioned as a function that can be impaired: in a discussion of the sacred disease, it is said that the physician should ‘take care if his patients are young and active, unless *their mind* has some defect (*phrenes . . . ti kakon echousin*) or the patient is paralysed’.

More ambiguously balanced between a literal and a metaphorical or abstract meaning is *Acut.* 14 (57.19–23 Joly = 2.332 L.), where sweet wine is said to ‘go less to the *phrenes*’ and to be ‘less affecting the *phrenes*’, *hēsson phrenōn haptomenos*, compared to *oinōdea*, the vinous type of wine. This suggests that *phrenes* are here the mental faculties that red wine affects more severely; Jones translates the word as ‘brain’!<sup>52</sup> A similar mental meaning seems to be implicit a bit below (58.24 Joly = 2.336 L.), where a change from white wine is encouraged in cases of ‘no affection of the mind’ (*mēde phrenōn hapsis*). At *Acut.* 17 (64.12 Joly = 2.360 L.), if *phrenōn hapsis* is suspected, complete abstinence from wine is to be preferred. The same expression, *phrenōn hapsis* – here together with headache – is used to describe a gynaecological pathology at *Mul.* 1.63 (8.128 L.): ‘if she has pain in the head and there is affection of the mind (*ei kephalēn algeoien kai phrenōn eiē hapsis*)’.

In a material sense, the *phrenes* are implicitly the seat of reason and mental functions at *Mul.* 2.200 (8.384 L.): the womb *is perceived* (presumably by the woman) as pressing against the *phrenes* (*hypo tas phrenas dokeosin hizesthai*); she ‘immediately becomes speechless, her *hypochondria* hardens, she suffocates, gnashes her teeth and cannot hear when she is called’. The discussion of the type of epilepsy (*epilepsiē*) that affects young virgins in *Girls* (*Virg.* 2.8, 22.23–24 Lami = 8.468 L.) cites blood flooding into and out of the *kardiē* (located in the chest, if only later identified with the heart) and *phrenes* as causing numbness and derangement. This area (*topos*) of the body, the chest, is said to be ‘critical for madness and *mania* (*epikairos es te paraphrosynēn kai maniēn*)’. Notably, it is in these two gynaecological texts that the *topos* of the triggered *phrenes* most closely approximates the traditional, poetic representations, while in all the others the mediation of an anatomical or physiological grid is inserted. *Girls* as a whole is perhaps the most ‘literary’ text of the Hippocratic collection.

<sup>52</sup> Jones (1923/1931) 105 *ad loc.*

*Pathology of the Diaphragmatic Region*

If we decide, in the interest of a medical-historical rather than a merely philological study, to identify *phrenes* with the diaphragm more firmly in the medical material than is possible in the poetic, and explore this body part rather than the specific term, other testimonies become relevant to associating the region with mental affection. At *Progn.* 7 (17.10–18.3 Jouanna = 2.126 L.), for example, throbbing in the *hypochondrium* (*en tōi hypochondriōi*) signals *thorybos*, ‘trouble’, or *paraphrosynē*, ‘delirium’. Galen (*Comm. Hipp. Progn.* I 28, 245.24–246.1 Heeg = 18B.89 K.), commenting on this passage, says that the diaphragm is most prone to madness (*diaphragma paraphrosynēn heteromotata pherei*) and adds – reversing the history of the concept – ‘for which reason the ancients called it *phrenes* (φρένας)’. See also *Epid.* 3, 17, case 16 (112.4 Jouanna = 3.146 L.), where ‘tension of the *hypochondrium*’ (*hypochondriou entasis*) is present in a case of illness involving wild derangement, or the similar case at *Epid.* 7, 25 (66.22–23 Jouanna = 5.394 L.), where the feverish and wildly deranged wife of Theodorus displays a ‘much swollen right *hypochondrium*’. In the nosological passage in *Internal Affections* 48 a ‘thick disease’<sup>53</sup> is described, with complex, obviously psychopathological consequences. These arise precisely when the liver swells and presses against the *phrenes* (*anaptyssetai pros tas phrenas*), causing pain to ‘immediately attack the head, especially the temples’, with mental consequences (*Int.* 48, 230.21 Potter = 7.284 L.). The patient’s condition deteriorates as the liver pushes further against this part (232.14–15 Potter = 7.284 L.).

Among the ancient scientists who prioritized the mental function in explanations of the etymology of *phrenes* and, preceding Galen, associated the noun with the verb of reasoning (*phroneō*, *phrenoō*, etc.) is Aristotle, who considered a localization in the chest fundamental in a cardiocentric frame. Discussing the diaphragm at *PA* 672b31, the philosopher writes: ‘For when, because of their proximity, the midriff absorbs the hot, residual moisture, straightaway it manifestly disturbs thought and perception (*tarattei tēn dianoian kai tēn aisthēsin*), which is also why they are called *phrenes*, as if they partake in some way in thinking (*hōs metechousai ti tou phronein*).’

Aristotle always discusses the *phrēn/phrenes* as diaphragm, clearly describing this as the bodily part that functions as a ‘belt’, *diazōma*, in the torso (*HA* 496b11; 506a6; 514a36; *PA* 672b11), a ‘partition’, *phragmon* (*PA* 672b20). To explain the functioning of this bodily part, he returns

<sup>53</sup> The Hippocratic texts recognize various kinds of ‘thick diseases’ (those characterized by thick sputum or a thickening of the skin in affected parts): cf. *Int.* 47 (226–31 Potter = 7.281–84 L.).

several times to the topic of laughter as specifically human: ‘They say that it happens also in the case of battle wounds damaging the area around the diaphragm (*peri tas phrenas*) that the person laughs because of the heat deriving from the wound’ (*PA* 673aII).<sup>54</sup> The pseudo-Aristotelian *Probl.* 35.6 (965a15–17) similarly observes that ‘laughter is a sort of frenzy or deceit’ and poses the question: ‘Is this why people struck in the midriff (*eis tas phrenas*) laugh? For it is not any chance part (*ho tychōn topos*) with which we laugh.’ Here, as in *Sacred Disease*, the reactive, ‘vibrating’ nature of the diaphragm seems to be at issue.<sup>55</sup> A passage in the *Timaeus* (69e2–70a2) discusses the ‘mortal part of the soul’ as located in the chest and thorax (*en de tois stēthesin kai tōi kaloumenōi thōraki to tēs psychēs thnēton genous enedoun*) and assigns the *phrenes* a key role in separating (70a1–2) the upper part of the torso, the one that contains the soul, from the appetitive part located in the stomach; the *phrenes* themselves are merely an inert fence between the two.

In various ways, then, ancient biology and philosophy, as well as medicine, reworked the heritage of traditional physiology and psychology, variously recognizing the relevance of the *phrenes* to mental life in the body, whether pathologically (the Hippocratics, Aristotle) or within the anatomical schema of their representation of the embodied soul (Aristotle, Plato).

#### *Pathology of the phrenes/Diaphragmatic Region and phrenitis*

What happens when not only derangement and fever, but *phrenitis* explicitly is mentioned in association with *phrenes*?<sup>56</sup> As noted earlier, it is difficult to identify such a precise conceptualization of the *phrenes* as mental centre of phrenitic affection, and the neat account a modern reader

<sup>54</sup> See discussion, with further examples and comparisons with animals and barbarians, ending at *PA* 673a32. The patient whose fatal diaphragmatic wound is described at *Epid.* 7, 121 (116.19 Jouanna = 5.466 L.) also displays ‘raucous laughter’ (*gelōs* [. . .] *thorybōdēs*; likewise, *Epid.* 5, 95.5 Jouanna = 5.256). For the idea, see later Pliny, *Nat. Hist.* 11.77, on death while laughing in battles and gladiatorial combats. Beard (2014) 25–35 offers a survey of the link between the diaphragm and laughter.

<sup>55</sup> The vibration of the *phrēn* of the mind is also found in Xenophanes, in a cosmological sense: ‘Without any toil, by the organ of his mind (*noou phreni*) he makes all things tremble (*kradainei*).’ A translation such as ‘by the membrane/diaphragm of its mind’ would maintain the embodied sense of the expression. Vibration for the act of embodied intellection is also found in the spider-image attributed to Heraclitus (22 B 67a D.–K.): ‘As a spider standing in the middle of its web is aware the instant a fly breaks any one of its threads, and runs there swiftly, as though lamenting the breaking of the thread; so a man’s soul, when any part of his body is hurt, hastily goes there as though intolerant of the injury to a body to which it is strongly and harmoniously conjoined.’

<sup>56</sup> It is fundamentally important that the Hippocratic sources not be approached as a consistent collection of treatises, even when different books of a work with a single name are involved. For the nosological treatises *Diseases* (1, 2, 3, 4), as for the clinical discussions of patients in the *Epidemics* (1, 3; 2, 4, 6; 5, 7), the individual books (or groups of books) should be treated as independent works.



would expect is ultimately missing. At *Morb.* 3.9 (76.20–29 Potter = 7.128 L.), in a section discussing possible onsets of forms of the disease, *phrenitides*, the mental part is treated as very important and reference is made to *phrenes*. This localization is entirely dissociated, however, from the idea that these might be mental organs:

Kinds of *phrenitis* (*phrenitides*) can also develop out of another disease. Patients suffer as follows: they experience such pain in the *phrenes* (*tas phrenas algeousin*) that they will not allow themselves to be touched, there is fever, they are deranged (*ekphrones eisi*), they stare fixedly, and for the rest they resemble patients with pneumonia who are deranged (*toisin en teisi peripleumoniēisi, hotan ekphrones eōsi*).

The connections between *phrenes*, diaphragm, the chest generally and *phren-* as aural semantic sphere mean that they are coexistent and implicit, never clearly defined. Every passage places greater weight on one vertex of this polygonal figure; here, for instance, the *phrenes* are concretely sore to the touch, and the derangement is indicated by the cognate *ekphrones*. One cannot consider only one of these accounts in isolation, as Potter observes in his comment on this passage: ‘Therefore, I tend to understand *phrenitis* in terms of the specific organ, that is, in the literal sense of “disease of the diaphragm”. In fact, the author probably understands the term *phrenitis* to mean both a disease of the diaphragm and insanity.’<sup>57</sup> The choice between these items – ‘concrete illness of the diaphragm’ vs ‘madness’ – is not presented as such by the classical texts, and the distinction between the different components, physiological and psychological, is entirely our own.

A pain in the area of the chest where the *phrenes* reside is also referred to in the discussion of *phrenitis* in *Aff.* 10 (18.14–19 Potter = 6.216 L.), although another localization in the torso and another term, *hypochondria*, is used there:

In *phrenitis*, at first there are mild fever and pain over the *hypochondria* (the *hypochondrium*), more on the right towards the liver. When the fourth or fifth day arrives, the fever becomes more intense, as do the pains, the colour becomes somewhat bilious, and the patient’s mind becomes deranged (*kai tou nou parakopē*).

Later on in the same passage, the *phrenes* are mentioned in a way that appears to match the locations just indicated: *Aff.* 10 (20.6–11 Potter = 6.218 L.) explains *phrenitis* as an overflow of bile ‘into the internal organs and the

<sup>57</sup> Potter (1980) 110 *ad loc.*, my translation from the German.

*phrenes*' (*pros ta splanchna kai tas phrenas*). In contrast to the previous part of this section, however, no mental function is mentioned, and all that seems to be intended is a general localization in the chest. The same could be said about *Morb.* 3.9 (76.20–23 Potter = 7.128 L.), where a secondary *phrenitis* developing from another disease is described. Here too patients 'experience such pain in the diaphragm (*paschousi . . . tas phrenas*) that they will not allow themselves to be touched, there is fever, they are deranged'.

In accounts which foreground blockage of fluids, the pathological picture resembles the makeup of epilepsy as described in *Morb. Sacr.* 7 (15.14–23 Jouanna = 6.372.5–6 L.). At *Flat.* 10 (117.11 Jouanna = 6.106 L.), for example, the *phrenes* are clearly said to constitute an impediment against the extravasated blood in the chest finding an outlet downwards, causing it to accumulate and putrefy. The process of putrefaction of the phlegm accumulated in the upper torso (*epi tōn phrenōn*) is described in detail at *Morb.* 1.15 (36.6–7 Wittern = 6.164 L.), although this disease has no mental implication. At *Morb.* 1.19 (50.16 Wittern = 6.174 L.) the pathology of the tubercles in the lung is described, and the *phrenes* are again the floor that stops or receives a putrid fluid (*epi tas phrenas*). Once again, however, there is no mental involvement.

The *Coan Prenotions* offer the two best approximations of an association between *phrenes* and the mental, and perhaps even the disease *phrenitis*. The first, *Coac.* 255 (164.5–8 Potter = 5.638 L.), is a rare example of *phrenes* as the *locus affectus* of a mental ailment: the passage opens by saying that 'frequent and shallow breathing indicates an inflammation and pain in the parts above the diaphragm. *If the breaths are deep and at long intervals, they indicate a disordering of the mind (paraphrosynē) or convulsions.*' At *Coac.* 571 (250.6–19 Potter = 5.716 L.) '*apostasis* and pain, especially in the region below the diaphragm (*hypo phrena*)', are foretold by a number of signs, 'with or without fever'; among these, 'colourless urine with dark suspended material, in association with restlessness and sleeplessness, indicates *phrenitis*'. In this passage the cognate terms *phrēn* and *phrenitis* are far apart; the affected area of an illness with a possible phrenitic outcome, however, is clearly said to be in the region of the *phrēn*. It is also noteworthy that this is the only occurrence of the singular in the *Hippocratic Corpus*, perhaps with more explicit reference to a mental effect.<sup>58</sup>

<sup>58</sup> At *Coac.* 571 (250.6–20 Potter = 5.716 L.) the only surviving Hippocratic instance of singular *phrēn* as opposed to *phrenes*, meaning 'diaphragm' (and possibly to be dismissed as a *falsa lectio*), would thus point precisely to a *locus affectus*. In addition, the entire gastric region is involved – this is a wandering pain in the lower torso that is seen as indicative – and the marker of fever, which is key to *phrenitis* and its sibling diseases, is explicitly said not to be decisive.

In sum, throughout the classical material *phrenitis* is characterized by a repertoire of fixed bodily signs, which are accompanied by mental derangement and, in terms of localization, repeatedly involve the chest or the hypochondriac area of the body, often (but not always) indicating this part with the word *phrēn/phrenes*, as well as the head. The aetiology, on the other hand, when indicated, is humoral or blood-related and involves no reference to the state of the *phrenes* or to any phrenocentric or cardiocentric theory of mind. Only in the case of the reference to blood, in fact, is there any direct mention of a place – albeit fluid – as a diseased centre of cognition.

*Conceptualizing the Disease Entity:  
Co-morbidity and Affinity to Other Diseases*

A quick survey shows that the ailment called *phrenitis* (*hē phrenitis*, ἡ φρενίτις) as a substantive (as opposed to ‘phrenitic’ as an adjective describing types of patients or manifestations) is mentioned in Hippocratic medicine far more frequently than *melancholia*,<sup>59</sup> making it a prominent example of a disease label ‘*qua* label’ in which the mental aspect plays an important role. This testifies to a greater conceptualization of *phrenitis* as a disease in the modern sense of the term already in the Hippocratics, a quality also evident to Galen, who repeatedly picks this disease as an ontologically powerful example.<sup>60</sup> This ‘ontological’ robustness<sup>61</sup> is also reflected in the fact that *phrenitis* and *phrenitics* early on enjoy a fixed set of relations to neighbouring diseases and are clearly placed as regards aspects of co-morbidity and classification. These are all signs of stronger conceptualization, taxonomic reliability and, as we shall see, the productivity of the concept for the development of medical ideas.

At *Morb.* 1.30 (88.7–11 Wittern = 6.200 L.), for example, we are told that ‘patients with *phrenitis* most resemble melancholics in their derangement (*kata tēn paranoian*), for melancholics too, when their blood is disordered by bile and phlegm, have this disease and are deranged (*paranooi ginontai*) – some even rage (*mainontai*)’. At *Judic.* 41 (13.11–12 Preiser = 9.290 L.) the association between *melancholy* and *phrenitis* is again discussed: ‘In persons suffering from melancholic conditions along with phrenitic ones, haemorrhoids are beneficial.’ The *Coan Prenotions* also preserve differential prognostic signs for *phrenitis*, while at 93 (124.21–22 Potter = 5.602 L.) the

<sup>59</sup> See Thumiger (2013) 62–64. <sup>60</sup> See Thumiger and Singer (2018a) 1–2; Chapter 5 in this book.

<sup>61</sup> Thus Berrios (1996) II, 242–43.

treatise mentions salivation (a sign connected to our disease): ‘Patients who become deranged with *melancholia* tremble and salivate: are they given to *phrenitis* (*ēra phrenitikoi*)?’ and so forth.

More concretely, *phrenitis* in the Hippocratic sources is contiguous to other diseases localized in the chest: at *Acut.* 5 (37.21–38.1 Joly = 2.232 L.) it is mentioned alongside *pleuritis*, *peripleumoniē* and burning fevers as examples of ‘acute’ diseases, in which fever is generally continuous;<sup>62</sup> *Aph.* 3.30 (408.11–13 Magdelaine = 4.500 L.) lists *phrenitis* among the diseases of the young (next to *asthma*, *pleuritis*, ardent fever, *kauson*, etc.); and at *Aph.* 7.12 (462.3 Magdelaine = 4.580 L.) a transformation of *peripleumoniē* into *phrenitis* is said to be a bad development (*kakon*). At *Morb.* 1.3 (8.3–7 Wittern = 6.144 L.), again, high fever, *pleuritis* and *phrenitis* are mentioned close to one another, as also at *Morb.* 1.3 (10.5–6 Wittern = 6.144 L.) and *Morb.* 1.3 (10.7–8 Wittern = 6.146 L.), where possible conversions among diseases located in the chest are surveyed: *pleuritis* into ardent fever, and *phrenitis* into *peripleumoniē*.<sup>63</sup> *Aff.* 6 (14.7–13 Potter = 6.214 L.) makes the taxonomic point explicit by speaking of a group of ‘diseases of the cavity’, again including *pleuritis*, *peripleumoniē*, burning fever and *phrenitis* in a common group; these are said to be more dangerous in winter. *Peripleumoniē*, *pleuritis* and *phrenitis* are also mentioned together at *Aff.* 12 (22.7–20 Potter = 6.220 L.), where it is made clear that the same cause, a displacement of phlegm and bile, can engender all of them depending on ‘where [the fluid] happens to fall’ (*ēn an tychēi*).

A therapeutic discussion in *Diseases* 3 reinforces this grouping of chest and winter diseases. Interestingly, this chapter opens with a description of *peripleumoniē* that might also fit an account of *phrenitis* in terms of time-frame and material. The patient suffers from violent fever and breathes rapidly; ‘he is distraught, weak and restless, and beneath his shoulder blade he suffers pain that radiates towards his collar bone and nipple; he has a heaviness in his chest; and he is deranged (*kai paraphrosynē*)’ (*Morb.* 3.15, 82.25 Potter = 7.136 L.). The therapeutic measures too are explicitly said to be identical for *phrenitis* and *pleuritis* (*Morb.* 3.15, 84.26–28 Potter = 7.140 L.).

In the patient cases, finally, although diagnoses are only rarely mentioned, *phrenitis* is one of the few diseases that features more than once. Apart from individual cases, a collective description at *Epid.* 1, 18 is very instructive about the categorization of our disease. Burning fevers (*kausoi*)

<sup>62</sup> See Pigeaud (1981/2006) 73 on this text.

<sup>63</sup> See Pigeaud (1987/2010) 34–35 on *phrenitis* and fever.

'at the equinox and about the setting of the Pleiades' are discussed, and among these, cases of *phrenitis* are noted as frequent and especially dangerous and deadly (25.8–12 Jouanna = 2.650 L.). These *kausoi* have *inter alia* the following signs: 'acute fever with slight rigour, sleeplessness, thirst, nausea, slight sweats about the forehead and the collarbones, much delirium, terrors, depressive states (*poulla parelegon*, *phoboi*, *dysthymiai*), very cold extremities, toes and hands . . . The cases of *phrenitis* had all the above symptoms, but the crises generally occurred on the eleventh day'; these emerge as extreme cases (26.11–27.2 Jouanna = 2.654 L.). In this discussion and those that follow, *phrenitis* is firmly categorized among the *kausoi* typical in winter.

### *Retrospective Diagnosis*

When it comes to diagnosis and nosological conceptualization, it is important to mention a unique cue preserved at *Epidemics* 3: a group of 'characters' or sigla that mark the end of some of the patient cases in this text, as a kind of quick note made by a physician after reading the text and now incorporated into it. These sigla were known to Galen (who considered them spurious) and therefore must have entered the textual tradition earlier than that, and they are present in some manuscripts (most notably V).<sup>64</sup> The issue and significance of the sigla is not at stake here, but it is useful to look at Galen's discussion and survey at *Comm. Hipp. Epid. III* (81–83 Wenkebach = 17a.610–13 K.). Here Galen interprets some sigla as meaning 'recovery' and 'death', 'miscarriage', 'destruction', 'urine like semen' and so forth – all shorthand markers for what made the case interesting for a reader. Apart from M for *μανία* (*mania*) (also used for *μήτρα/η*, *mētralē* 'womb'), no other siglum corresponds to a clear disease label. Instead, they seem to indicate variable signs or states ('irritation', 'dryness') or concrete items ('sputum', 'urine', 'wheat'). The Φ (F/PH) used for *phrenitis* is thus exceptional and can be taken as corroborating evidence of the importance of the disease from the fifth century BCE to Galen's era.

This Φ (F/PH) indicating an ancient retrospective diagnosis of *phrenitis* is used for three patients in *Epid.* 3, 17: case 14 (110.1 Jouanna = 3.142 L.), case 15 (111.9 Jouanna = 3.146 L.) and case 16 (112.14 Jouanna = 3.148 L.). The first is a woman who had a difficult twin birth. Acute fever with shivering follows, along with a painful head and neck, sleeplessness, colourless urine, thirst, wandering and derangement, and finally convulsions and death.

<sup>64</sup> See Jones (1923) 213–17; Thumiger (2018d) on the possible meaning of these signs.

The second is a female patient who falls ill ‘from grief’ (*ek lypēs*). She displays acute fever and shivering, and wraps herself up and has richly described crocydism (*epsēlapha, etillen, eglyphen, etrichologeī*). There are also tears and inconsequential laughter, as well as wandering, silence, much talk – a complete picture of insanity – slow breathing, and finally death. The next patient, a young man from Moelibea, falls ill out of drunkenness and sexual indulgence, not uncommon triggers for derangement. There is ‘thin urine, no colour’; slow, deep respiration, with long intervals between breaths; tension; softness beneath the *hypochondrium*; delirium (quiet, then wild); sleeplessness; and death. In addition to these three patients, case II at *Epid.* 3, 1 (77.6 Jouanna = 3.62 L.) is marked with the label *phrenitis* in some manuscripts (Gall) and φρενιτιαία (*phrenitiaia*) in others (IV), to the same effect: a female patient with fever, a heavy head, comatose state and sleeplessness, delirium, fears and despondency, and no thirst, all ending with death, is identified as phrenitic.

The qualification of all these cases as *phrenitis* indicates that sometime between the fifth century and Galen these portrayals were recognized as clearly pointing to our disease. The significant markers are crocydism, the quality of urine, derangement and psychological distress. To these we may add one final, much later retrospective diagnosis of *phrenitis*, offered by Potter in his Loeb edition of *Diseases* 2, where against both manuscripts he changes the *paradosis* φροντίς (*phrontis*) to φρενίτις (*phrenitis*) at *Morb.* 2.72 (326.6 Potter = 211.15 Jouanna = 7.110 L.), discussed above.<sup>65</sup> The passage is a portrayal of an illness with significant psychopathological details in which ‘the *phrenes* swell outwards and are painful when touched’.<sup>66</sup> Jouanna retained the original reading *phrontis* but wondered: ‘Did the author feel the etymological connection between φροντίς (*phrontis*) and φρένες (*phrenes*)? Was he relating the swelling of the *phrenes* to mental derangement? Perhaps there is a trace here of the archaic belief that the *phrenes* are the source of intelligence.’<sup>67</sup> The question remains open for modern readers as much as it did for ancient ones: a psychological disturbance with pain in the diaphragm (‘anxiety, worry’) is diagnosed as *phrenitis* (Potter) or seen as a possible indicator of the mental relevance of the *phrenes* (Jouanna).

<sup>65</sup> p. 29. <sup>66</sup> See also Thumiger (2017) 377 on this passage.

<sup>67</sup> Jouanna (2003) 211 n. 5; my translation.

*After Hippocrates*

What happens in the period between the composition of the nucleus of the Hippocratic texts (which date from the classical era) and our next extensive source, the section on *phrenitis* in Cornelius Celsus' *De medicina*, some four centuries later (3.18)? The evidence is scant, since the bulk of Hellenistic medical writing (later fourth century BCE to the beginning of our era) is lost. The sophistication and richness of Celsus' account makes one regret this loss all the more, since many developments in medical approaches to mental disease must have intervened. Unfortunately, given the restricted number of uses of the term *phrenitis* in non-medical texts, most of the evidence for this period is negative. As mentioned above, it is striking that neither Plato nor Aristotle mentions *phrenitis* even once in discussions of madness, confirming that the disease remained strongly linked to bodily physiology.<sup>68</sup> Moreover, Aristotle's discussion of the *phrenes* at *Parts of Animals* 3, 672b28–30 as a partition between regions of the body and as 'drawers (of heat)' (*pros tēn thermotēta tēn . . . hoion paraphyades*) that serve to protect the nobler upper parts from the lower ones devoted to digestion, offers no account of *phrenitis*. An affection of the part is described by Aristotle when he writes that when the *phrenes* become drenched in the 'hot, residual fluid' from below, this 'evidently disturbs (*epidēlōs tarattei*) the intellect and perception (*tēn dianōian kai tēn aisthēsīn*)'. The disease itself, however, is not addressed, despite points of contact with a phrenitic humoral aetiology.<sup>69</sup>

If we turn to the fragmentary evidence, considerable information regarding these intervening centuries can be extracted from later medical writers and doxographers. Three figures stand out: the *Anonymus Parisinus* (*AP*, first century CE), Galen (first–second century CE) and Caelius Aurelianus (fifth century CE). Additional information is preserved in the encyclopaedic works of Aetius of Amida and Paul of Aegina (sixth and seventh century CE, respectively). This indirect testimony – to be read, of course, with the caution that reported opinion and doxography dominate in it – is of immense assistance in filling in the gap between the Hippocratic material and the work of Celsus; I rely on it for what follows.

<sup>68</sup> The disease is categorized by the second-century BCE Pythagorean Hipparchus (190–120 BCE, according to Stobaeus, Diels, *Vorsokr.* I.2 p. 449) as clearly 'of the body' (Stobaeus 4.44.81 p. 980 Hense, *Vorsokr.* 29 p. 228): 'In the body (*peri to sōma*) there are forms of *pleuritis*, *peripleumonia*, *phrenitis*, *podagra*, strangury, dysentery, *lēthargos*, *epilēpsia*, putrefaction and many others. But those in the soul (*peri tan psychan*) are greater and more, for profanities against life, evil acts, illegalities and impious acts are among the illnesses of the soul.'

<sup>69</sup> See Ahonen (2014) 75 on this passage.

In addition to these authors, important information is offered by a section of a first-century CE text, the so-called *Anonymus Londinensis*,<sup>70</sup> regarded by scholars as preserving material from the so-called *Menoneia*, a collection of medical writings known to Galen and composed as early as the fourth century BCE, which are attributed to Aristotle but were in fact written by his disciple Menon. We therefore start from this, as the earliest source for medical developments in this period. At *Anon. Lond.* IV.7–10, just before the beginning of the text attributed to Menon, the author discusses how diseases get their names. These can derive, he says, from the ‘attendant affection (*apo parakolouthountos*)’ or the ‘affected place (*apo topou*)’ (5.7–10 Ricciardetto<sup>71</sup>). Thus ‘fever’, *pyr*, is named after the affection, the symptom of fever (*to pyrōdes*, 5.10 Ricciardetto), and so too in the case of ‘paralysis’ (*paralysis*, 5.11 Ricciardetto). Next the author mentions a different case, exemplified by *phrenitis*: ‘*phrenitis* gets its name from the place affected (*apo topou*). For the affection establishes itself in the *phrenes* – this is *not the diaphragm*, but the rational part of the soul (*ouchi to diaphragma, alla tout’ estin to logistikon meros tēs psychēs*, 5.13–17 Ricciardetto).<sup>72</sup> The difficulty is in attributing this powerful remark regarding localization to a precise period. The concept of a *logistikon*, a ‘rational part of the soul’, is found in Plato’s tripartite schema and is also Aristotelian and Stoic. What is noteworthy here is the theoretical distinction between *phrenes* as location (the diaphragm, rejected by the author in this connection) and the word’s abstract, non-bodily meaning ‘mind, intellect’, which is the sense he intends. Most of all, it is remarkable that, as far as we can tell, in this second use as ‘mind’, *phrenes*, like *to logistikon*, is still treated as a spot in the human body, a *locus affectus*, a *topos*. We thus have here an early voice advocating against a localization of mental life in the diaphragm (agreeing with *De Morbo Sacro*), but also arguing against a bodily meaning of *phrenes* when it comes to our disease, in contrast with the bulk of Hippocratic material discussed above. As an alternative, another bodily location or delocalized ‘embodiment’ for the rational functions is indicated, ‘*to logistikon*’. To identify this with the brain, as Jones does in his light-hearted translation (‘for the affection makes

<sup>70</sup> A Greek papyrus with medical content dated around the first century CE preserved today in London and first edited by Manetti (2003); see Ricciardetto (2016) ix–xxiii; Manetti (2022). On this passage, see also Pigeaud (1981/2006) 77–78; Ricciardetto (2016) 77–80 *ad loc.*

<sup>71</sup> *eirēsthai de to pathos symbebeken [apo] parakolouthountos [ē] apo topou.*

<sup>72</sup> *apo topou de tēn onomasian eschen phrenitis; to gar pathos peri tas phrenas synistatai, ouchi to diaphragma, alla tout’ estin to logistikon meros tēs psychēs.*



its seat in the *phrenes* (brain, not diaphragm), *which is the rational part of the soul*<sup>73</sup>, is to read too much into the word and mislead the reader.

Other important testimony from the same period comes from Diocles of Carystus (fourth–third centuries BCE), a physician much celebrated in antiquity whose work survives only in fragments. Diocles wrote variously on dietetics and nosology, and several later nosological works (e.g. Galen, *Anonymus Parisinus* and Caelius Aurelianus) refer to him as an authority, suggesting that his contribution was substantial. What is known about Diocles' opinions on *phrenitis* comes mostly from Galen and Caelius Aurelianus. In fr. 71 van der Eijk (preserved in Galen's *On Critical Days*) Diocles is quoted as saying that 'people do not become affected by *phrenitis* (*phrenitikoî*) immediately from the first day', which seems to confirm comorbidity with other diseases and the nature of *phrenitis* as an unfavourable development from one. Fragment 72 belongs to the doxographic section of the chapter on *phrenitis* in *Anonymus Parisinus*, which focuses on the localization of the disease:

Diocles says that *phrenitis* is an *inflammation* of the diaphragm (*phlegmonē tou diaphragmatos*<sup>74</sup>) – he gives this name to the affection on the basis of the place (*apo tou topou*) [affected], not the activity (*apo energieas*) [affected]), the heart being affected simultaneously (for he, too, seems to posit reasoning around this) and that, for this reason, too, these affections are accompanied by mental disturbances.

The concept of inflammation (*phlegmonē*), said in *Anonymus Parisinus* to be Diocles', is a crucial step towards a thematized localization of the disease (or any disease generally), since it places the emphasis on an impaired part suffering damage or alteration.<sup>75</sup> The author goes on to explain the name, but adopts the opposite perspective from *Anonymus Londinensis*: *phrenitis* is called after the anatomical place, the diaphragm, *because it is close to the heart*, indicating the region Diocles regards as the centre of mental functioning.<sup>76</sup> Derangement is the implication of this involvement of the cardiac region.

Caelius Aurelianus also preserves information about Diocles' therapy for *phrenitis* (fr. 73 van der Eijk), although this is of limited significance for our purposes: in *On Fevers* (thus Caelius, *Morb. Ac.* I.II–12 = 76.25–80.88 Bendz)

<sup>73</sup> Jones (1947) 33 *ad loc.*

<sup>74</sup> *diaphragma* appears to be a more technical term for the midriff (*phrenes* for some); cf. van der Eijk (2001) 146.

<sup>75</sup> See van der Eijk (2001) 146.

<sup>76</sup> As van der Eijk (2001) 147 notes, the expression used is *peri tautēn*, 'around it'; Diocles is not a proper cardiocentrist, or at least not by virtue of this passage.

he appears to have said that the ‘strong and impetuous’ should be treated with baths, but the ‘young and strong’ and full-blooded, or those who drink wine habitually, with venesection. According to Caelius in his section on causes and treatments, moreover, Diocles said that blood should be taken from the vein under the tongue as well as from the arm. The late-antique pharmacological author Gargilius in his *Medicinae ex holeribus et pomis* (third century CE) XVIII (2 Maire) says that Diocles prescribed boiled garlic for phrenitics; this appears to be in line with the use of substances with a strong aromatic scent, or even a foul smell, to stimulate such patients.

We only have two testimonies regarding *phrenitis* in Herophilus (fourth–third centuries BCE). One comes again from Caelius Aurelianus: at *Morb.Ac.* 1.11–12 (76.25–80.8 Bendz), in his chapter on *phrenitis*, Caelius writes that ‘neither Hippocrates nor Praxagoras nor Herophilus (T 239 von Staden) handed over any treatment for the disease, unlike Diocles’. A possible reference to Herophilus’ disciple Demetrius of Apamea is also found at *Morb.Ac.* 1, 4–5 (24.6–9 Bendz): *Demetrius Erophilum sequens* is said to ‘define *phrenitis* as a violent attack of madness accompanied by a loss of reason and (more frequently than not) by fever (*delirationem . . . vehementem cum alienatione atque <frequentius cum><sup>77</sup> febre*), and swiftly leading either to death or at times to a restoration of health’ (T 211 von Staden). Von Staden interprets *sequens* as indicating doctrinal agreement (‘following the view of . . .’), as opposed to ‘being a follower of . . .’; both are possible.<sup>78</sup> Fever appears to be underplayed here, as opposed to other sources which refer to it ‘more’ or ‘rather frequently’: Caelius, uniquely, challenges the claim that fever should occur ‘most of the time’.

Erasistratus (304–250 BCE), the other great Alexandrian medical authority besides Herophilus, is said by *Anonymus Parisinus* in his doxographical section on the causes of the disease (Erasistratus fr. 176 Garofalo) to have claimed, in accord with his doctrinal convictions, that *phrenitis* occurs when

the activities of the [cerebral] membrane are affected (*kata ti pathos tōn kata tēn meningan energeiōn*); at the place where, according to him, thinking is reasoning (*he noesis phronēsis*), disturbance of thinking is likely to represent a disturbance of reasoning (*he paranoēsis paraphronēsis*).

This passage is the first attestation of the association between *phrenitis* and the brain that shapes the history of the disease from Galen to the modern

<sup>77</sup> *frequentius cum* is Bendz’s addition.    <sup>78</sup> See von Staden (1989) 377 on this.

era. Not only the head, but a specific part of the brain, the meninges, are involved in making the localization more concrete. The doxographer here reverses the logic of *Anonymus Londinensis* once again: as in the case of Diocles' quasi-cardiocentrism, because Erasistratus located thinking in the head, *as a consequence* he located the disturbance of thinking, *phrenitis*, in the head as well.

Erasistratus' encephalocentrism is juxtaposed in *Anonymus Parisinus* to the cardiocentric view of Praxagoras (fourth century BCE): Praxagoras 'says that *phrenitis* is an inflammation of the heart (*phlegmonē tēs kardias*), whose natural activity he in fact believes to be reasoning (*phronēsis*), and that when the heart is disturbed (*tarassomenēn*) because of this inflammation, it becomes productive of this affection' (1.2, 2.7–10 Garofalo = Praxagoras 61–2 Steckerl).<sup>79</sup>

This simplified organization of material must be taken to reflect the *Anonymus Parisinus*'s penchant for localization and neat categories.<sup>80</sup> Proof of this is found in the final paragraph, devoted to Hippocrates on *phrenitis* (1.4, 2.16–21 Garofalo), contrary to chronological order. Here the encephalocentric suggestion does not match at all what we know from surviving Hippocratic material: 'Hippocrates says that the mind is placed in the brain (*en tōi enkephalōi tetachthai*) like a sacred statue on the acropolis of the body (*kathaper ti hieron agalma en akropolei tou sōmatos*), and that it uses as nutriment the blood around the chorioid membrane'; corruption of this blood causes the phrenitic pathology.

Caelius also provides information about other figures from the Hellenistic period, whom he discusses especially in regard to therapeutic measures. The first of these is Heraclides of Tarentum (third–second centuries BCE), a Greek physician of the Empirical school who wrote commentaries on Hippocrates, and 'the only empiricist' Caelius wishes to mention, as he states explicitly (114.13 Bendz). Heraclides' recommendations in Book I of his *On Treatment of Internal Diseases* (in Caelius, *Morb.Ac.* 1, 17 = 115.13–125.16 Bendz) can be paraphrased as follows: patients should lie in a dark place, since light can excite them; clysters should be given for the bowels, at no specified time, but

<sup>79</sup> Following the interpretation offered by *Anonymus Parisinus*; see van der Eijk (1999a) 308–09 on the doxographical style of this text.

<sup>80</sup> See van der Eijk (1999a). *Anonymus Parisinus* mentions Hippocrates in connection with a strong version of encephalocentrism just after this passage and thus in the context of *phrenitis*. But this representation has no correspondence in the Hippocratic texts we have, and certainly not in association with *phrenitis*. This passage instead reflects, I suggest, the encephalocentric interest of *AP* as author. On this passage, see van der Eijk (2001) 147–48.

every day; it is recommended that one foment the head with decoctions of laurel, then shave it with a razor and steam it again; it is beneficial to apply a poultice of flour and hydromel, iris, mastic oil and sweet flag; the head and nostrils should be anointed with sulphurwort, castor, poppy juice and bitter almond oil (or with vinegar and iris oil); a decoction of poppy and thyme should be used to warm the head at night; sleep should be induced by administering oppressive drugs in the correct dosage; if the disease subsides, chicken broth or gruel made from pearl barley should be offered.

A second type of treatment is advised in cases of *phrenitis* arising through indigestion (*cruditati*, 122.2 Bendz). This concept is itself interesting, since it connects to the gastric localization in a strand of the Hippocratic account of the disease (see above<sup>81</sup>), despite the fact that Heraclides regarded the head, *caput*, as central. In this second case, a poultice should not be permitted until a clyster has been administered. There is also a third type of *phrenitis*: 'If the whole body is not weighed down with excess food, but only parts of the head seem congested, blood should be withdrawn from the forehead vein' (122.32 Bendz). Finally, what may be a further type is mentioned for those 'who have fallen into the disease through decomposition (of the humours)' (124.4–5 Bendz). For them, Heraclides recommends a clyster, water to drink, and sometimes honey with wine.

This survey of therapies offers a confirmation of the early presence of a competition between localizations, and a division of *phrenitis* into distinct embodiments, so to speak: some precisely localized (in the head), some 'removed' or shifted (to the stomach), and some, finally, holistic and delocalized ('putrefaction of the humours').

### Conclusions

From this survey of the doctrines preserved from the Hippocratics, on the one hand, and the traces of later developments in medicine in the centuries that follow, on the other, a number of themes and aspects emerge: the localization, increasingly polarized around the chest and head; the originary nature of *phrenitis* as a winter chest ailment; the strong technicality, shown by the absence of any reference even in Aristotle and Plato; the fever. If this picture appears to dominate in medical quarters, we also find traces of a competing suggestion, which

<sup>81</sup> pp. 34–35.

gives a central place to a holistic, delocalized account (the role of blood, for example, as *locus affectus* or causative agent, as seen above). I focus next on this branch of the tradition, one that emerges later and endures for centuries, although it remains marginalized in the history of the disease.