



Research Article

Copyright @ Cristina Raffaghello

Foods, Diets and Medicines in the Middle English Version of Lanfranc's *Chirurgia Magna*

Cristina Raffaghello*

University of Eastern Piedmont "Amedeo Avogadro", Department of Humanities, Italy

*Corresponding author: Cristina Raffaghello, University of Eastern Piedmont "Amedeo Avogadro", Department of Humanities, Italy.

To Cite This Article: Cristina Raffaghello. Foods, Diets and Medicines in the Middle English Version of Lanfranc's *Chirurgia Magna*. Am J Biomed Sci & Res. 2023 18(3) AJBSR.MS.ID.002466, DOI: 10.34297/AJBSR.2023.18.002466

Received: 📅 March 13, 2023; Published: 📅 March 30, 2023

Premise

I submit an analysis of foods contained in the Middle English version of Lanfranc *Chirurgia magna*, which is also known as *Que dicitur ars completa totius chirurgie*. In particular, I consider some aspects relating to wound care and diets that patients need to follow, considering their diseases.

Lanfranc wrote down his *Chirurgia magna* in Latin about in 1296 and dedicated it to the king of France Philip the Fair and young physician Bernard of Gordon [1]. Together with his previous work *Chirurgia Parva* [2], *Chirurgia magna* represents one of the first treatises about medicine written in France and is divided into five books (normally preceded by a prologue), then subdivided into several chapters.

The Middle English translation of *Chirurgia Magna* (second half of 14th century) came to us in two codices, eg. mss. Oxford, Bodleian Library, Ashmole 1396 (dated about 1380, uncertain origin, ff. 1a-269b which transmits Lanfranc work entirely) and London, British Library, Add. 12056 (Wiltshire, dated about 1420, ff. 31a-86b, which ends at the fourth chapter of the second book, regarding the hand bones) [3].

Chirurgia Magna Contents

Referring to my previous article (see note 1) and as above mentioned, Lanfranc's *Chirurgia magna* is divided into five treatises which include books and different chapters. In the first treatise Lanfranc explains the general principles of surgery (eg. surgical ethics, anatomy, embryology, common and ulcerated wounds and how to cure them). The second treatise regards the body parts and related wounds. The third treatise concerns the skin diseases, treatment of abscesses, nose, ear, and breast diseases, together with kidney stones and phlebotomy. In the fourth treatise we can find the fractures and dislocations of bones. The last one is an antidotary regarding a list of remedies, which Lanfranco divides into seven groups (i.e. repercussive, resolving, maturative, regenerative, consolidative, mollifying and cauterizing ones), according to their functions, rather than to their types.

Diets and Remedies in *Chirurgia Magna*

In all the five books of Lanfranc's work are attested foods, plants, flowers and resins which are considered under two different aspects: as medicaments/remedies against diseases and diets for patients. The most important food products, used for medical practitioners are eggs (both *zelke* of an ey 'yolk' and *whi3t* of an ey 'egg white'; as their employments depended on the different kind of wounds, bruises and pathologies), honey, almonds, garlic, onions, wheat and barley flours, blueberries and winegar. On the contrary, concerning plants and flower, we can find both juices of verbena and mallow, used together with several kinds of flowers. Concerning the resins, Lanfranc mentions the *asa fetida* (a resin coming from a plant growing in Persia), *frankencense*, sandragoun ('sang-dragon'), mastic resin, armoniac (bole armoniac) and fenigrec. About all resins, Lanfranc specifies their compositions; except for *frankencense*.

Normally, Lanfranc is used to describe the pathologies, illnesses, diseases or wounds, afterwards he mentions the medicaments or remedies to be applied (including ingredients and doses); finally, he prescribes the diets that the patients must follow. Furthermore, he sometimes explains few cases relating to patients he previously treated.

Lanfranc's Teaching About Constitutions of Human Body

In any case, Lanfranc affirms every surgeon has to consider the physical compositions of his patients; in fact, in the first treatise (book 1, chapter 2) in he informs us that there are four peculiarities of the human body: hot, cold, wet and dry. Moreover, within the human body these four qualities can be mixed among them, giving rise to the constitutions of the human body. In fact, there are people having hot and dry, hot and wet, cold and dry, cold and wet constitutions. In addition, each of them can be simple or compound; a few with matters, other without matters (and so there are sixteen). Among these sixteen, some can be natural and others unnatural, so there are thirty-two. For all these reasons, a surgeon



must be careful before prescribing diets and medicines as he has to be careful to distinguish each peculiarity. Po qualitees from bodies þat ben foure: hoot, coold, moist & drie, & *complexiouns* ben bi hem, it is necessary to find in bodies þat ben medlid foure complexiouns. *Complexiouns* is no þing ellis but a maner qualite medlid in worching & suffryng of contrarious qualitees þat ben founden in elementis, so þat þe leeste partie of ech element entre into þe leeste partie of þe oþere & for þat ilke. .iiij. *complexiouns* hoot, moist, coold & drie, sumtyme ben y-componed, þat is to seie medlid þer comen up hem .viiij., as: hoot & drie, hoot & moist, & coold & drie and coold & moist. Foure of þese ben symple and foure componed; & for þilke .viiij. sumtyme ben wiþ mater & summtyme wiþoute mater þer ben. xvj. & for þilke. xvj. afitir sum consideratiun moun be naturel to summan & summan vnnaturel / þer moun be. xxxij. Neuere þe latter among alle þe *complexiouns* þat man mai fynde, þat is componed of dyuers qualitees þat it is necessarie a surgian to knowe *complexiouns* of bodies, lymes & of *medycyns* (ms. Oxford, Bodleian Library 1396, f. 3b).

Po qualities from bodes-ben foure: hot, colde, moyst & drye, & *complexiouns* ben by ham, yt ys necessarie to fynden in bodyes þat ben medlyde, foure complexiouns; Complexioun ys noþynge ellys but a manere qualite medlyde in worchyng & suffryng of contruiose qualite þat buþ founden in Elementis, so þat þe leste partye or eche elemente entre in to þe leste partye or þe oþere partye. And for þat þilke foure complexiouns: hot, colde, moiste & drye, sumtyme nen y-componyd, þat ys to sugge medlyde þere comen of hem VIII, as hote & drye, hote & moiste, colde & drye, colde & moiste; ffoure of þese ben symple, & foure ben componyd And for þilke VIII sumtyme ben with mater, sumtyme withoute mater, þere ben XVI & for þylke XVI, after sum consideracioun mowe ben to naturel to sum Man & to sum man vnnaturel, þere mowe ben XXXII. Nevere þe latter amonge alle þe *complexiouns* þat man may finde, þat is componyd of dyuerse qualitees & ... Y may preve in þis manere þat yt is necessarye a surgyne to knowe *complexiouns* of bodyes, *lymes* & of *medycyns* (ms. London, British Library Add 12056, f. 34b).

Lanfranc's Teaching: Diets and Remedies for Wounded Patients

Diets for Wounded Patients

In the first treatise (book 1, chapter 2) Lanfranc mentions the diets for wounded people in general, informing us they are forbidden to consume wine, milk, eggs and fish.

We forbade him wine, mylk & eggs & fish... but he schal ete for his mete growel maad or otemele, eiþer or barli mele wiþ almaundis; & he schal use a streit dietyng, til þat he be sikir þat he schau noon enpostym (ms. Oxford, Bodleian Library, Ashmole 1396, f. 3a).

We forbid him wine, milk & eggs & fysz... but he schal ete for his mete grueþ y-made of ote mele, oþere barly mele with Almaundes. & he schal vsen a streit doynge tyl þan be sykere þat he schal haue non enposteme (ms. London, British Library, Add. 12056, f. 33b).

This topic is repeated in the first treatise (book 3, chapter 10) in which Lanfranc quotes the various diets to be prescribed to

wounded patients in more detail.

The. x. chapitle of þe þridde techinge is of gouernance & diete of men þat ben woundid (ms. Oxford, Bodleian Library 1396, f. 37a): The x Chapitle of þe þridde techyng is of men that beth y-woundyde (ms. London, Add. 12056, f. 57v)

"The tenth chapter of the third treatise is about treatments and diets suitable for wounded men' Regarding diets to be prescribed to wounded patients, Lanfranc explains that some doctors are of different opinions. In fact, some physicians think that patients are allowed to eat hearty food, like capons and hens besides drinking wines, in order that they can recover faster. In the opinion of these doctors, wounded patients should avoid drinking water, as it can cause corruption of the injured body part. On the contrary, other physicians are of the opinion that patients should avoid hearty foods and eat just bread, cooked apples and drink water in the first ten days of their disease: Þer ben manye men þat discorden of dietyng of men þat ben woundid, for sum men zeuen to alle men þat ben woundid, wheþir þat it be in þe heed ot in ony oþere place, good wiyn & strong fleisch of capouns & of hennes : & þei affermen þat bi sich a maner wey sike woundid men ben sumere heelid / for þei seien þat water putrifieth lymes þat ben woundid & engendriþ enpostymes & corrupiþ & febliþ complexiouns & makiþ harmys. & sumere oþere men gouernen alle maner of sike men þat ben woundid wiþ breed & watir & applis soden til ten daies ben goon. (ms. Oxford, Bodleian Library 1396, ff. 37a-b); Many men discorden of dietyng of men þat ben woundyde, for sum men zeuen to alle men þat ben woundyde, wheþer þat it be in þe hed oþer in enye oþere place, gode wyn & stronge flesch of capouns & of hennys; and þey affermen þat by swyche a manere weye seke woundyde men somere ben y-helyde, ffor þey siggen þat watyre putrefyedþ lymes þat beþ woundyde & engendriþ Apostemys & corruppyth & flebith *complexiouns* & makyth many harmys Sum oþere men gouernen alle manere of syke men þat beþ woundyde with brede & water & Applys y-sodyn, tyl x dayes ben passyde (ms. London, Add. 12056, f. 57b).

Moreover, in Lanfranc's opinion several doctors are wrong, as they do not consider the physical characteristics of wounded people, as above mentioned. On the contrary, in prescribing diets, all physicians should consider the constitution of each patient. In this occurrence, we can read Lanfranc's references to his sources. In fact, he affirms he prefers to follow his ancestors' teaching, such as Galien (129-201)[4], Avicen (980-1036) [5] and Rhazes (850-903 o 923) [6]. In fact, he thinks it is wrong to rely only on his own experience, which can be useful, but it is not enough. On the contrary, it is right to refer to the teachings of the great doctors of the past. Finally, regarding wounded people, Lanfranc thinks it is correct to avoid wine and meat just during the first phase of disease and in case of head or nerve wounds. And if god wole eende þis book, it scha be remeuynge erroris & declaring duties. I seie þat þese boþe sectis erren in her opynyons, for þei taken here only to ther experimentis not consideryng resoun of complexioun of him þat is woundid.

3if þat god wyl ende þis bok, yt schal be remeffyng away Errores & declaryng & opynge Downtous. Y sigge, þat boþe þese

sectis erren in here opyniouns, ffor þey taken hede onlyche to here experiments no3t considerynge resoun of þe complexioun of hym þat is y-woundyde. 3e schulen vndirstonde þat boþe þese sectis ben nou3t ; & þerefore I folowynge þe doctrine of rasis, auicen, & galion & of opere doctouris; & also experimentis þat I haue longe preued; I seie þat it is nedeful þat a woundid man in þe begynnynge absteine him from wryn & namely if þat þe wounde be in þe heed eiþir in ony partie of a senewe (ms. Oxford, Bodleian Library 1396, ff. 37b); Þe vnderstandyge þat þe boþe sectes bys no3t comendable and þerefore y folowynge þe doctryne of rasy, Avenge, galien & of oper doctoris & also experymentis, þat y haue longe y-preuede, sigge þat it is nedefull in þe bygynnynge þat a woundyde man Absteyne hym from wryn & namlye 3if þat þe wounde be in þe hed opere in eny partye of a synwe (ms. London, British Library, Add. 12056, f. 58a).

Remedies for Wounded Patients

In the first treatise (book 3, chapter 3) Lanfranc points out the foods used to heal wounds. For instance, to heal nerve injuries, he starts specifying the different kind of them; in fact he asserts that lengthwise wounds (called fissura) are less dangerous than widthwise ones (called sissura), because lengthwise wounds are easier to stitch up: Þe woundis þat ben maad in lenkþe of þe senewe ben lesse perillous þan þo þat ben maad in brede of þe senewe ben most perilous. If þat a senewe were wændid in lenþe, he mai wel & li3tliche sandide togedere (ms. Oxford, Bodleian Library, Ashmole 1396, f. 19b); The woundes þat be þy mad in lengthe of þe synne beþ lasse perilous & þo þat beþ in brede of þe synwe beþ more perilous. Gif þat a synwe were wounded in lengþe he may be wel & ly3tlyche y-sandyde togedire (ms. London, British Library, Add. 12056, f. 47a). In any case, to disinfect both wounds, he recommends to use mondificatives, consisting in boiling flour of barley together with rose honey: A mundificatif medicine of senewis wounded is maad of þis maner: take mel roset colat 3. iii. smel flour of barley & medle hem togedere & boile hem slili (ms. Oxford, Bodleian Library, Ashmole 1396, f. 23a); A mundificatyff medicine of symwes y-wandyde ys y-made in þis manere: R. mel rosat colat 3.iii. smel floure of barley 3 medle hem togedre & boyle hem slily (ms. London, British Library, Add. 12056, f. 48a). Afterwards, to treat the wounds after suturing, Lanfrancs recommends spreading egg-white onto the wounds: Bynde togiperis þilke wounde with a boond þat closiþ þe wounde togiperis & keep þilke wounde from swellynge wiþ þe whi3t of an ey leid aboute þe wounde & lete þe wounde be in reste (ms. Oxford, Bodleian Library 1396, f. 16b); Bynde togedyre þilke wounde with a bound þat close þe wounde to gedire & keep þe wounde from swellynge wiþ þe whyte of an ey3e y-lede aboute þe wounde & lete þat wounde ben in reste (ms. London, British Library, Add. 12056, f. 44b)

‘Suture the flaps of the wounds and then rejoin them together and spread the egg white on to preventing it from rotting. After words bandage the wound and let it rest’. However, we can find the employment of winegar together with a resin, the so-called bole of armoniac, both used as a disinfectant medicine, called medycyn defensiv by the Middle English translator: & þanne worche aboute þe wounde... leie a medycyn defensiv of bole armonyac, oyle of rosis & a lytil vynegre so þat þe medycyn touche þe brynkis of þe wounde

þat humoris moun not haue her cours to renne to þe wounde (ms. Oxford, Bodleian Library f. 5a); And þenne worche aboute þe wounde... leye a Medycine definsiuue of bol Armonyac, oyle of rosys & a litel vynegre so þat þe medycine touche þe sydes of þe woundes þat humours mowe no3t hauen here cours to renne to þe wounde (ms. Londra, British Library, Add. 12056, f. 35b). In addition, the oil of roses is quoted for the first time in this occurrence, although it is mentioned again in the first treatise (book 3, chapter 3), in which Lanfranc explains how it is prepared, (eg. using the oil obtained from the unripe olives), adding the explicative gloss: Oile of rosis , þat is maad of olie de oliue þat is nou3t ripe (ms. Oxford, Bodleian Library 1396, f. 20a); Oyle of roses , þat ys y-made of olye of olyffe, þat is nou3t rype (ms. London, Add. 12056, f. 47v). ‘Oil of roses, that is prepared with oil from olives that are still riping’ [7]. On the contrary, concerning deep wounds, going down to the bones, Lanfranc recommends to use *frankencense* powder, mastic and sangdragoun [8] (all mixed together), in order to obtain a purifying compound to be smeared onto the wounds: ... and putte in þe same medycyn a litil poudre of *frankencense*, mastik & sandragoun medle hem togedere & leie aboute þe wounde till it be hool (ms. Oxford, Bodleian Library, f. 23b); ---þenne putte in þe same medycine a lite smal poudre of franke ensence, mastike & sank dragoun & medle hem to gedre, & leye aboute þe wounde tyl it be al hol. (ms. London, Add. 12056, f. 49a).

How to Heal Wounds and Burns: In the first treatise (third book chapter 5) the author considers those wounds caused after falling from a horse or in case of being struck by stones and similar wounds: Þe fifþe chapitle of þe þridde techinge of woundis þat ben maad wiþ smytynge of staf or stoon or fallynge or smytynge of an hors or wiþ ony opir þing semblable (ms. Oxford, Bodleian Library 1396, f. 25b); Þe ffye Chapitle of of þe þridde techinge is of woundis at that beth y-mad with smytynge (ms. London, British Library, Add. 12056, f. 10v). In case there is a burn next to a wound, the author advises to sprinkle the burn with oil of roses and blueberry powder and then put yolk, together with oil of roses, using a dab or a little linen cloth. After that, the doctor has to smear a compound on the wound, prepared with four parts of water, one part of olive and four of wheat, leaving it on the wound until it is closed; then he has to clean again and let it heal: if þat a brusour were wiþ a wounde, anynte aboute þe wounde or eille þe place þat is brusid wiþ þe oile of rosis & poudre of mirtilles for it fastneþ be place. Wiþinne þe wounde leie þe 3elk of an ey, wiþ oile of rosis with stupis, ellis wiþ lint. Leie aboute þe wounde a potage maad of .iiij. parties [9] of watir & oon partie of oile de olyue & four of wheete þat sufficiþ to þe medycyn & leie þis medycyn to þe wounde, til þat þe akþe be aswagid, & til þat þe quytture be engendrid, aftirward clense þe wounde, aftir þe clensynge regenerer & at þe lawounde te cicatrice (ms. Oxford, Bodleian Library 1396, f. 26b-27a); 3if þe brosure were wiþ a wounde, anynte about þe wounde opere ellys þe place is y-brusyde, wiþ oyle or roses, & ræste aboute þe forseide poudre of mirtillyes, for þis medycine fastnyth þe place þat is y-brusyde... Wiþynne þe wounde leye þe 3olke of an eye with oyle of roses, with stupes opere ellys wiþ lynte, & leye aboute þe wounde a potage y-madde off foure partyes of water & o partye of oyle d’Olyve & floure off Whete þat suffyseþ to þe meductbe & leie

bis medycine to þe wounde, aftere þe clenysnge regenerere, & at þe laste cicatryce (ms. London, British Library, Add. 12056, f. 51v).

Remedies for Virulent Wounds and Ulcers: In the first treatise (book 3, chapter 11) Lanfranc mentions several substances to be applied to those patients suffering from virulent wounds and ulcers: The .xj. chapitle of þe þridde techinge of þe firste tretis (ms. Oxford, Bodleian Library 1396, f. 39v); The xi. Chapitle of chapitle of þe þridde techyng of þe firste tretys is of olde woundes (ms. London, British Library Add. 12056, f. 59r). About virulent ulcers, we can find also an explicative gloss and we are informed the physician must observe what type of matter comes out of the wound; then he has to disinfect the wound with a compound prepared by boiling rose water, lamp, balaustrade, lentis and honey. Finally, he has to cleanse with water or wine, together with asbinthe, Bulgarian marrubium, sage, burnet and honey: If þe vlcus be virulent þat is to seie venemi loke if þat þe venym þat goiþ out be redisch or zelowisch & if þat þe lyme haue any maner heete; þanne waische it wiþ water of rosis and barlich, alim (aluminis), balaustia & lentiles wiþ hony ben soden yn & lete þis watir persee to þe deppe of þe wounde & waische it wiþ watir or wiyn þat mirre wormode (ie. absinthium), horhone (cfr. lat. marraubium vulgare), sauge, pimperlle, hony symple or compounded ben soden yn (ms. Oxford, Bodleian Library 1396, f. 41v); 3if þat þe Vlcus be Virulente þat to sigge Venym þat goþ out be reddysch oþere zolwe, & 3if þat þe lyme haue enye manere hete ; & þenne wasche it wiþ water þat rosys / barlyche Alum & balaustia & lentilis with honye symple oþere componed ben sodyn In . And lete þis watere persen to þe depthe of þe wounde. And 3if þe Virus be withouten hete & þe membre haue non lete, wassche it with water oþere wyþ wyn, þat Mirre, wermot horhowne, sauge, pypirnel, honye symple oþer componed ben sodyn In (ms. London, British Library, Add. 12056, f. 60r).

Diets for Patients Suffering from Gangrene: In the first treatise (book 3, chapter 13) the author deals with the gangrene referring to the diets suitable for these patients. In this case, they have to eat fine foods, as mutton, capoun, pheasant, partridge, chicken and little birds. Instead, they have to avoid beef, donkey, geese and big birds (living in water), salty and overly soaked foods (i.e. garlic, onions and winegar), red and thick wine, if they intend to live long on earth. Instead they can drink 'clear' wine [10].

... þe pacient use a good gouernaile: as drinke good wiyn & cleer & lithe & he muste leeue reed wiyn & troublid & þicke wyn & he may ete good fleisch, as moutun of a weþer, kide fleisch sowkyng, capouns, hennes, chickenes, partrichis (pernix), fesautis & smalke briddis... & he muste leeue: beeuces fleisch & gotis fleisch, hertis fleisch & haris fleisch, goos, dockis, & alle grete briddis þat lyuen in watri placis & al salt þing & acute þing as garleek, oynyons & vynegre et cetera [þat] þe sike man may lyue þe lengere vpon erþe (ms. Oxford, Bodleian Library 1396, f. 49b); ... þe pacient vse a gode gouernaylle : as drynkinge gode wyn & clere & lyzt & he mote leuen red wyn and troblyde & þykke wyn ; & he may eten gode flesch, as motoun of a weþire kyde fflsch sokkyng, Capouns, hennys, Chykenys, partryches, ffauntes, & smale briddes, & he moste leuyn beffys flesch, gotys fflsch, hertys fflsch, harys fflsch,

goses, dokys & alle grete briddys þat lyuen in watrye places, & alle salt þyng : garlyke, Oynouns, vynegre, &c., þat syke men mowe lyuen þe lengere vpon erthe (ms. London, British Library Add. 12056, f. 65b).

Remedies for Gangrene: First, Lanfranc explains that a cancer [11] must either be left untouched or entirely removed from its roots. Regarding the medicament, Lanfranc advises to clean the wound having gangrene, drie it and anoint with an ointment used to employ, together with unguentum tute [12], cherry to be mixed with oil of roses, portulaca or some other cold herbs [13] ... This ointment is very effective medicament: Waische þe wounde of þe cancre wiþ gotis whey, & drie it softly, & anoynte þe wounde wiþoute with þis oynement of rasi & tuti / take ceruse, tutie, I-waische & medle hem wiþ oyle of rosis & wiþ ius of purcelane or of sum oþere cold eerbe, putte ynne sum of þe toon & now sum of þat oþer, til þe oynement be weel I-maad / þis oynement is myche worþ for to defende þat þe malice of þe cancre schal not wexen (ms. Oxford, Bodleian Library 1396, f. 49b); Wassche þe wounde of þe cancre with gotys whey³, & drye yt softlyche & anoynt þe wounde withinne & without, with þis oynement of rasts of tutye. R. ceruse, tuthye, y-sasschyn and medle hem wiþ oyle of rosis & wiþ jus of poslane oþere of sum oþere colde erbe, now puttyng in sum of þe on & now sum of þe oþere tyl þe be ful mad. Pis oynement ys myche worth forto diffendem, þat þe malys of cancre þat is y-woundyde schal no3t waxen (ms. London, British Library Add. 12056, f. 65b).

Healing of Different Diseases

Remedies for Cough

In the third treatise (book 2, chapter 8), entitled Apostym wiþoutforþ aboute þe spaudis and þe gibbositees Apostym wiþoutforþ aboute þe spaudis and þe gibbositees, Lanfranc refers to the cough in children, teaching us he is used to cure this disease with almonds, previously diluted in a decoction of fennel, together with almonds, tarragon, quince, in order to obtain a kind of soup as thick as honey is. As soon as the cough gets better, the patients can take a bath in marshmallow rose, almond leaves and flax seeds boiled in water: Also it bifalliþ þat children han grete bocchis in her brest & þat comeþ of cowzinge þat puttiþ out þe matere, & also it comeþ of greet wynd þat puttiþ out þe matere . Þe cure herof in þe firste bigynnyng is in þis maner for to aswage cowzinge as almaundis temperid with a decoccioun of fenel. Also take swete almaundis .ij. partis, dragaganti [14] semen, citoniorum [15] ana, oon parti, Iulip [16] quod sufficit & make herof a souping medicyn þat it be as þicke as hony. whanne þe cowzinge is aswagid, þan make him a baþ wiþ rotis altea & leues of malue & fenigrec & lyne seed soden in watir & þis schal be cast vpon þe enpostym wiþ a vessel holden an hize þere from þanne aftirward þou schalt dissolue þe matere & make it neische with medycyns þat ben forseid in hard enpostyms, & þan cure it vp as it is aforseid in þe enpostyms of wijnd. (ms. Oxford, Bodleian Library 1396, f. 147a-b). However, in this case, Lanfranc does not quote any diets for this disease.

Cure of Apostema at the Stomach, Liver and Spleen

In the third treatise (book 2, chapter 10) Lanfranc explains the diseases at the stomach, liver and spleen, prescribing his patients

to sprinkle the part with different types of oils (mastic and lily ones), together with ointments of roses and absinth, squinting, cypress, barley and other things that he does not specify: Whanne þere schewiþ an enpostym in þe mouþ of þe sstomac & aboute þe regioun of þe lyuer & of þe splene, it is good & profitable to comforte þe place wiþ oyle of mastic, & oyle of spica & ile of lilie & wiþ cold enplastris of rosis & of absinthio, squinto, cipero, citonijs wiþ mele of barli & opere þingis (ms. Oxford, Bodleian Library 1396, f. 148b). However, a physician should beware of repellents, but he can apply resolving medicines: & þou schalt be wel war of repercussiu, whanne þe enpostym is nyȝt ony principal lyme, saue þou schat leie þerto resoluynge & maturatif þingis & loke þat þei be not medlid wiþ no þingis þat bn repercussif, for if þou ledist ewpwxuuaaiua vpon þe stomac or þe lyuere or þe splene þei wolde be enfeblid þerwiþ & to al þe accioun of þe bodi wolde be enperid : for þese lymes seureþ principaly for to norische al þe bodi (ms. Oxford, Bodleian Library 1396, f. 148b).

Remedies for Patients Suffering from Eye Diseases

Lanfranc starts to write there are a few eye-diseases and some of them can be contagious. One is ophthalmia, consisting of a white (or red) point in the eye [17]. it is important to distinguish three different degrees of ophthalmia (i.e. light, strong and severe) þere comeþ manye sijknessis in þe iȝen & summe comeþ of causis wiþoutforþ & summe of causis wiþinneforþ, and þere ben oper maner sijknes of þe iȝe & þat ben seid contagious : as obtolmia ... obtolmia is clepid a whit welke or a reed poynt. In þe maner obtalmia is clepid enpostym of þe iȝe & þere en .iij. maners of obtalmia : as liȝt & strengere & alþer strong (ms. Oxford, Bodleian Library 1396, ff. 162b-163a). Subsequently, the author mentions the treatments for this disease, including two remedies that Galien and Rhazes were used to prepare. Galien's remedies were both a compress (obtained from

yolk of one egg, oil of roses, verbena juice, saffron and opium all mixed together; in order to obtain an ointment, then to be closed in a piece of linen cloth and placed ob the eye) and eye-drops (obtained from breast milk) [18] : R. a zelke of an eij, & as miche of oile of rosis, & as miche of iuys of verueine & . ɛ j. of saffron & ɛ of opij; medle togidere & make þerof an enplastre & leie it vpon a sotil lynnen cloþ & leie it on þe iȝe & in his iȝe leie collirium album with wommans milk þat noryschiþ a maide child ; for .G. made þis medicyn. (ms. Oxford, Bodleian Library 1396, f. 164a). The other concerns Rhazes who was used to treat ophtalmia with the eye-drops (called collirium album), to be applied threefold a day, which Lanfranc himself had the opportunity to try on his patients. This remedy was prepared by cherries, astragalus sarcocolla, starch and tarragon and opium pound all mixed together and diluted in pure water, until it gets thick. Afterwards, the mixture had to be closed in a piece of linen cloth and placed on the eyes, as well: Rasis made collirium album in þis maner & it is good þing for I haue preued it ofte tyme . Take ceruse waisch .x. partis, sarcocolle greet .iij. partis amidi .ij. partis, tarracon (Lat. dragaganti) .j. parti, opij j. grinde alle þese togidere & tempere hem wiþ rein water & make þerof pelottis as gret as it were a pese & kepe hem & whanne þou wolt worche þerwiþ tempere oon þerof wiþ wommans milk þat it be as picke as

it were must (Lat. mustum) & leie þerof in hise iȝen þre sidis in þe dai (ms. Oxford, Bodleian Library 1396, f. 164v).

Diets for Patients Suffering from Eye Diseases

Next Lanfranc describes the diet for patients suffering from ophthalmia, consisting in eating no meat and drinking no wine, although the patient is allowed to eat a colaturee [19] of almond milk: & whanne þe reednes & swellyng of his iȝe is aweie he mote be war of his dieting, for he mai ete no fleisch ne drinke no wijn, saue he mote ete colature of almaunde milk (ms. Oxford, Bodleian Library 1396, f. 165b).

Cure of Kidney Stones

In the third treatise (book 3, chapter 8) Lanfranc illustrates that a stone in the bladder or the reins arises from a superfluity of the humours and great heat, a stile get hard in the fire: A stoon n a man is engendrid of plente of grete humoris wiþinne a man, as we moun se an ensample wiþoutforþ of opere þingis, in þe maner þat men brennen tilis in a furneis (ms. Oxford, Bodleian Library 1396, f. 190v). Later he mentions the foods that a patient must avoid and those that he can eat, together with treatment to be adopted and medicines to be taken, including a syrup that Avicen was used to prepare. However, in his diet, the patient should abstain from beef, geese, water fowl, offal, sweet bread, dairy productys (unless whey), salty foods, apples and pears. Moreover, he must abstain from drinking new wine, water that is too cold and from any substance increasing humors: Now I wole teche in what maner a man schal kepe him þat is disposid to haue þe stoon, he schal ete no metis þat ben viscous ne to scharpe, & tofore alle þingis hard chese gaderiþ viscous mater & hard & he schal ete no beef, ne no fleisch of a goos ne no grete briddis þat swymmeþ in þe water & he schal ete no fleisc of an hert & he schal ete no swete bread [20] & al maner mete þat is maad od swete past & he schal ete no whete soden & he schal ete no maner þing þat is maad of milk saue þe whey & he schal drinke no coold watir, & he schal ete no fruitis þat ben of greet substauce as applis, peris & he schal drinke no newe wijn, ne no wijn of greet substauce & he schal ete no þingis þat ys to myche salt & he schalt absteyne him fro alle þingis þat engendriþ scharpe humoris & grete & he schal not ete to greet sauly [21] (ms. Oxford, Bodleian Library 1396, ff. 191r). On the contrary, the patient can eat well-leavened bread, possibly with fenel of parsley seeds; drink light wine, preferably mixed with water. In addition, he may eat capon meat, hens, chicks and partridges, as well as all the meat of birds living in the fields, but he cannot eat the meat of waterfowl. Furthermore, he can eat pork, veal and mutton; boneless fish and hard-boiled eggs.

Finally, the he can drink a diuretic sirup (called oximel diureticum and squillitic) [22] or another one that Avicenna used to prepare, consisting in water, winegar, fennel roots boiled all together; afterwards the sirup has to be mixed with sugar and it is ready to be drunk: In þis maner he schal diete him silf, he schal ete breed þat is wel leueyned & his breed wole be þe bettir for him if it be medlid wiþ poudre maad of fenel -seed & persil & he schal drinke sutil wijn & cleer medlid wiþ fair cleer water. And if his reynes & his bowels weren hote þan he mai drinke coold water

þat be clair & clene & he mai ete fleisch of capouns & hennes & chilkenes & partrichis & of alle oþere maner of briddis þat mouen in feeldis & of hem þat woneþ in watir he schal no ete. & he mai ete pork & motoun & principali of beestis þat ben gildid & he mai ete fleisch of .iij. daies poudringe & he mai ete veel & he mai ete eiren þat ben meische soden, fisch þat haþ no schellis & þer substaunce to him be greet & hard, he schal not ete þerof alle maner fisch þat haþ manie schellis, is better þan he þat haþ no schellis.

He schal vse sirupis dretikis as oximel diureticum & squilliticum, or he schal vse a sirup þat auicen made R. Aquae li x. aceti li medle hem togidere & boile hem wiþ .iij. of rotis of ache & rotis of fenel 3 .iij. and fenel seed & ache ana & .j. seþe hem alle togidere til þe .iij. part be consumed awei & þas cole hem & do þerto li .x. of sugre & þan clarifie it & seþe it & kepe it for þin vss (ms. Oxford, Bodleian Library 1396, f. 192a).

Dermatological Diseases

Hair Loss

In the third treatise (book 3, chapter 2) Lanfranc points out how to heal hair loss. In all these cases, it is necessary to use a compound, obtained from one part of laudanum, diluted in fourth parts of cranberry oil and spread it on the hair roots: If þou wolt kepe heeris þat þei schulen not falle awei R. ladani (lat. laudanum) 3 .j. & resolue it in 3 .iiij. of oile of mirtilles & herewiþ anynte þe rootis of þe heeris (ms. Oxford, Bodleian Library 1396, f. 105r).

Baldness (Allopecia)

Afterwards, Lanfranc illustrates baldness, called in Latin alopecia, informing it can be related to several diseases, as explained in the title itself of alopecia þat is namys of fisik þat signifieþ diuers passions (ms. Oxford, Bodleian Library 1396, f. 105v). After affirming the meaning of baldness and inserting two glosses (the first explicative alopecia is a maner of spice (Latin species) of lepre þat comeþ of rotid fleume, the second lexical Alopix in grew, is seid a fox in latin), he claims that hair falls out at certain times of the year: For comounli al maner lesing of heer is clepid alopecia: saue for to seie þe soþe, alopecia is a maner of spice (Lat. species) of lepre þat comeþ of rotid fleume. Saue in þis chapitre I wole speke of alopecia þat falliþ oonli in þe heed. Alopix in grew, is seid a fox in latin for a fox in sum tyme of þe 3eer his heer piliþ awei & þerfore fallyng awei of heer is clepid alopecia (ms. Oxford, Bodleian Library 1396, f. 105v). In this case, Lanfranc's source is Bartholomeus Anglicus' [23] De proprietatibus rerum, in which are described baldness causes: And if suche fumosite faileþ nouzt but is infect or i-lette by som oþir humore, þan failinge and lak of heer is nouzt propirliche ballidenes but a special yuel þat phisicians clepen alopiciam. By þat yuel þe nurtur of heer is corrupt & faileþ & þe heer falleþ & þe ferþe partye of þe heed is bare and þe furþer skyn of þe heed is þe foulere. Solche men faren as foxes, for þe heer of hem falliþ happiliche for immoderat and passinge hete. Allopes in grew, vulpes in latyn, a fox in englische (De proprietatibus rerum, Middle English version [24] , ms. London, British Library Add. 27944, f. 66v). Later, Lanfranc distinguishes two pathologies related to the

head skin, i.e. alopecia and ringworm. In fact, he points out that the first one consists merely in hair loss and the second regards the loss of skin parts:

Allupecia that is wiþoute comeþ of the skyn [25] & sometimes it comeþ in the sense of a sickness for defect of nourishing of the body that should help to nourish the heeris, or it comeþ for the pores openeþ to moth. Tinea is as miche to seie as a reeremotis fo þe heeris of a reremous ben alway aboute þe heed & þerfore surgeons makib difference bitwixe allopiciam & tineam, for þei clepiþ tineam þere þere is corrupcioun in þe skin wiþ hard crustis & quytture . Saue allupucia is when the heeris fall away without any wisdom of the clouds (ms. Oxford, Bodleian Library 1396, ff. 105v-106r).

This disease is also mentioned in Bartholomeus Anglicus' De proprietatibus rerum (book VII, chp. 44, ms. Add. 27944, f. 80r).

Also þe heed is often disesid wiþ an famuler passiou, þat children hauen often and by constantin þat yuel had squama, skull & we clepiþ þat yuel tinea, moþþe for it fretiþ & gnaweþe ouer part of þe skyn of þe heed as a moþþe fretiþ clooþ & cleueþ þerto wiþoute departments & holdings þe sky wel fast.

Afterwards, in order to avoid it, Lanfranc recommends eating good food and rubbing the head with cranberry oil. In case this remedy was not enough, it was necessary to rub the head with the onion as soon as it becomes dry.

In this case it is necessarie for to augmente norislinge of þe body wiþ good metis, þat engendriþ good blood & rub well þe heeris of his heed wiþin hond & anynte it wiþ oile of mirtillorum. If it suffiseþ not, rub well þe heeris of his heed wiþ þin hond til þe skyn of his heed become reed & þan rub it wiþ ryndis of an oynoun, till it become drie (ms. Oxford Bodleian Library 1396, f. 106r).

Remedies for Pustules

The third treatise (book 1, chapter 4) regards the skin diseases and chapter 4 is entitled of litil pustulis þat wexiþ in a mannes face or in children hedis 'About pustoles on children's foreheads'

After explaining the meaning of saphati by the explicative gloss (Saphati ben litil pustule þat wexiþ in a mannes heed & in children forhedis), Lanfranc recommends to follow a diet (recommended also by Galien), consisting in abstaining from salty foods and strong wine. Moreover, he prescribes soaking the pustules with a decoction of chamomille, roses and fenigrec; afterwards he prescribes to add warm chamomile oil:

Saphati ben litil pustule þat wexiþ in a mannes heed & in children forhedis & her face & principali in wommens facis & also in mennys facis þat ben moist & makib sume crustis. For to cure þis passiou, here þou schalt haue a good medicyn of .G. of aischis of cucurbite & argilla. Children moun be holpen þereof if her norice absteine hir fro sal metis & scharpe & fro strong wijn & þe child schal be baþid in a decoccioun of camomille & rosis & fenigreci & þou schalt anointe þe place wiþ oile of camomille hoot (ms. Oxford, Bodleian Library, f. 113r-v).

A similar remedy was employed also by William of Saliceto [26] who recommended to anoint the child's forehead with warm chamomile oil, as we can read in the Middle English version of William's Chirurgia [27]

This sekness is not bred but children when þei souken, and it ys clepid a crost, and it us mad in hem in þe forheed and in þe hede. The cure of it ys þat every day þe place most be anointed with oyle of camomille hoot . And þe noryse absteie hyre fro flesses, and fro chese, and fro scharp metis (Chirurgia, I. 2, ms. London, British Library, Lat. Sloane 277, f. 55b).

Antidotary

The fifth treatise regards all kind of remedies, which Lanfranc divides into seven groups, as quoted above. In the first book he explains the repercussive medicines, used to heal the most important human organs, as heart, brain, liver, stomach, kidneys and bladder.

Repercussive Medicines

Here bigynneþ þe tretise of repercussiuus: Repercussiuus bifallþ for hoot apostymes & principal whanne it bigynneþ in a noble lyme : as in þe herte, ouþir in þe brayn, ouþir in þe heed, ouþir in þe lyuere, þe splene & þe stomac, reynes, ballokis & in þe bladde (ms. Oxford, Bodleian Library 1396, f. 242r). Among repercussive medicines, we can find herbs, flowers, plants and roots, leaves, seeds and minerals. In addition, some can be simple, others can be compound: *Medicyns* þat ben coold & ripercossius, summe ben simple & summe ben compound. Of simple medicyns, summe ben of herbis, & summe ben of trees, & summe ben leues, & summe ben rotis, & summe ben seedis, & summe ben flouris, & summe ben greynes of minerals, & summe ben watris, & summe ben oilis And summe þerof I wole sette in þese bokis þat ben greetli in vss toward us . And þere ben *medicyns* coold & moist þat þou miȝt vse for to atempere þe complexioun of lymes þat ben distemp[er]id in hete & drienes (ms. Oxford, Bodleian Library 1396, Bodleian Library 1396, f. 242v).

For instance, among herbs we can find: Malua, capillus veneris, psilium, portulaca, atriplex . mercurialis, Rapa, cucurbita, Melones, Citruli [28], Semen maule, seminisi .iiij. frigidorum, semper viua, lactuca ortulana [29]. Iusquiamus, Mandragora, Papauere, argentum viuum, f. & h. in .iiij. (frigidum et humidum in quarto gradu (ms. Oxford, Bodleian Library 1396, f. 243r).

Resolving Medicines

Of þe maner of resolutiuus: In the second book of the same treatise, Lanfranc illustrates the curative medicines. At the beginning of this book, Lanfranc makes a distinction between curative medicaments and maturative ones This is þe difference bitwixe resolutiuus & maturatiuus : Resolutiuus haueþ tempere hete wiþ sotilnes & openynge (Latin cum subtilitate aperitua) . Maturatiuus haueþ tempere hete wiþ viscosite (ms. Oxford, Bodleian Library 1396, f. 247a).

Afterwards, Lanfranc mentions the prescriptions, explaining how to prepare curative medicines and gives the recipe on how to

prepare curative medicines, i.e. you need to male a decotion of herbs, dependning on the type of medicine you want to use, by boiling the herbs in water, afterwards with the same water, you have to clean the affected part. The maner of resoluing : make a decouccioun of herbis of whiche þow wolt make þi medicyn & kepe þe watir þat þe herbis ben soden yn, & wiþ þe same watir, þou schalt waische þe lyme (ms. Oxford, Bodleian Library 1396, f. 247v). Resolving medicines can be simple or compound. Among the simple ones are included herbs, flowers, seeds and resins:

Of medicyn resolutiuus summe ben simple, as camomilla, Mellilotum, paritaria, malua silvestris & alia, volibilis[30] , fumus terre, caulis, anetum, vrtica, enula, borago, sambucus, kebulus, valeriana & alle herbis þat ben hoot in tempere wiþ sotilnes (ms. Oxford, Bodleian Library 1396, Bodleian Library 1396, f. 247v). Later, Lanfranc lists the substances divided into seeds and resins: De seminibus . Semina caulium, aneti, vrtice, malu . De gummis . Masix olibanum, opoponac, asa fetida, mirra, serapinum, armonicum, bdellium, galbanum & alle maner sotil gummis : lapdanum, ysopus humida, terbentiina, cera, swytinge of bestis & buttir. In this occurrence, the author qutoes the different types of oils to be used for curative purposes, giving an example about its preparation. So, it is necessary to get chamomille flowers, fenigrec and leaving both in olive oil (contained in a glass vessel), later it is to be left in the sun and fourty days after, it can be employed: Pis is an oile resoluinge & makip hoot & accessip akyng R. Florum camomille recencium, fenigreci seminis ana .3 ij. leie hem in xx .3 j. of oile of oliue in a glasen vessel, & lete it stonde to þe sunne .xl. daies in somer & þan kepe it for þin vss (ms. Oxford, Bodleian Library 1396, f. 248r).

Maturative Medicines

Of þe tretis of þe foure maturatiuus: Regarding maturative medicines (book 3) Lanfranc explains that each medicine having maturative properties is hot and viscous and mentions all the herbs, roots, fruits, seeds and gums: Eueri medicyn þat is maturatif is hoot in tempere wiþ a matere viscosite þat wole mot suffre þe vapor to goon out, but is holdip it wiþinne til it be maturid; & ben þese : Malua viscus, branca vrcina, root of brionie, root of lappacii acuti (sharp lappa), baucia, Root, flour of wheat, seed of flax, fenugreek, dried figs & alle þat ben foreseid in þe nexte chapitre tofore, if þat þei beþ medlid herwiþ. This is a good maturatif compound of manie þingis þat makip hoot mater maturatif. R. leaves of malue black, that is common malue fat or ortolane, brance vrcine, root of brioni, root of malue visci ana. .j., seþe hem alle in watir & stampe hem, & þan do þerto malua vici; & þan take of þe same watir a pound & freisch grese .3 .ij., & sotil mele oif whete .3 .iiij., & sotil mele of lynseed & of fenigrec ana .3 .j., medle hem togidere & boile hem perfizli , & made þerof poultice, & þan þerto þe foreseid herb & rootis wel grounde, & medle hem togidere & loke þat þei ben not to picke. For it schal be algate þin entencioun, þat poultice, þat schal be resolutif of maturatif or nmundificatif, be shal not be hard, for if it be hard, ti wole make akyng to þe lyne & þan it wole anoie more þan profite (ms. Oxford, Bodleian Library 1396, f. 250a-b). Moreover, Lafranc quotes a particular ointment, called basilicum, which was employed by Avicen and other physicians during Late Antiquity and the Middle Age. Also vnquentum tetrafarmacum &

is clepid of Aucenna basilicon [31] & þus manie men preisþ þis medicyn . Galien, Auicen, Serapion, Iohannes Mesue & Holy þe abbot & it makþ empostys maturatif & it is good for wounds & for vlcera þat ben bicom hard. R wax, resin, pitch, onion, veal duck, and oil that sizzles. Summen in stide of ceum þe putten buttir & summen in winter þei doon þerto oon parti of bdellium, & summen taken oonli ceram, pitch, & rasinam ana, & olium & þis is basilicon minus togidere (ms. Oxford, Bodleian Library 1396, f 251b).

Mundificative Medicines

Of þe tretis of mundificatiuis

In the fourth book, regarding mundifying remedies, we are informed they are used to cleanse:

Mundificatum is a miche to seie as clensyng & doþ awei hore . & eueri þing þat doþ awei hore in woundis & superfluite, may be seid a mundificatif . A mundificatif mat be seid in .ij. maners . As a medicyn þat is taken bi þe mouþ ouþer wiþ a pessarie for to make clene a mannes lymes wiþinne . And þer ben summe *medicyns* þat makþ clene a mannes blood as cassia fistula, manna, tamarindi (ms. Oxford, Bodleian Library 1396, Bodleian Library 1396, f. 252b).

As concernes the cleansing of wounds, it is recommended the following medicament, obtained by strained honey, very fine flour, diluted in a little water. This is a coold mundificatif for to make clene woundis þat ben freisch in which is good quite . R. mellis rosati colati .3. Iij., farine subtilissime onlei .3. j., & do þerto a litil water, & seþe hem softli þat þei ne brenne not; & algate þou schalt meu it wiþ a spatule, & þan make it abrood vpon a cloþ & leie it vpon þe wounde / this makþ clene & confortþ (ms. Oxford, Bodleian Library 1396, f. 253b-254a)

On the contrary, if it is necessary to cleanse the dura mater of the brain (in case of the wound in the head), it is useful to employ this product:

Anoþir mundificatif þat makþ clene duram matrem whanne a man is hurt in þe heed & whanne dura mater is bicom blac R. mellis rosati colati 3 j., olij 3 . medle hem togidere (ms. Oxford, Bodleian Library 1396, Bodleian Library 1396, f. 254a).

Regenering and Consolidative Medicines

Of *medicyns* regerenatiuis & consolatatiuis

These medicaments are divided into few groups, as Lanfranc himself affirms in the fifth book. However, he considers aggregating and consolidating medicens as one, as well as sealants, scars and consolidatives:

It þinkþ bi þe maner of speche þat þe *medicyns* þat ben sedi in þis chapitre ben al oon, but þer is miche difference bitwise . for of summer alle þei ben clepid consolidatiuis . But agregatiue & consolidatiue ben al oon. And regeneratiue & incarnatiue & facientes carnem nasci, ben oon to seie ; & þer is greet difference bitwise hem þat ben forseid & þese . And sigillatiuis & cicatrizatiuis & consolidatiuis ben al oon (ms. Oxford, Bodleian Library 1396, f. 256a).

Later Lanfranc explains that all substances belonging to the above mentioned groups are not treated similarly bu physicians, although some doctors sometimes gave medicines their own names. For instance, we can find some difinitions, given by some physician which do not correspond to those mentioned in Avicen's works. It is possible it is due to the translators of the works who came and went over the time:

Neþeles alle þese names ben not propirli take of alle auctouris . But oon herof is taken for anoþer ofte tyme . But to seie þe soþe a medicyn þat is clepid aggregatum or conglutinatum, & in A. in diuers placis taketh diuersli þese names of *medicyns* : and I suppose þat it were defaute of men þat translatis þe science (ms. Oxford, Bodleian Library 1396, f. 256a).

In addition, Lanfranco explains the different types of medicamens; for instance aggregating and consolidating ones are resinous; they correspond to those medicines Avicen called incarnatives; on the contrary others called consolidatives. But for to seie þe soþe aggregatiua or consolidatiua is a drie medicine & haþ gummosite in him & whanne it is leid to þe lyme , it wole resolute wiþ his drienes . It drieþ vp superfluite of moistnes þat is bitwix þe lippis of a wounde, wiþ a litil ligature or sewing it soudiþ togidere . A. clepid þis incarnatiua, & summen clepen it consolidatiua & ben þese Sanguis draconis, calx, thus masculinum, folia pirorum, pomorum, porri, lilij cortices , palme, arnaglossa, folia cipressi, folia vitis albe, nux recens, folia acetose, puluis molendini, ordeum vatium, flos sorbe lac acetosum, & oþere mainei þat ben vnknownen to us (ms. Oxford, Bodleian Library 1396, f. 256b).

To heal severe wounds, the following product had to be employed:

A good medicyn for þis entencioun : *frankencense* partem vnā, sanguis draconis partes duas, calcis viue partes tres, & make herof poudre & leie ynow3 vpon þe .ij., lippis of þe wounde þat is swewid togidere (ms. Oxford, Bodleian Library 1396, f. 256b).

Afterwards, Lanfranco mentions Rhazes ointment, of which recommends the employment in case of the skin is loss, because of wounds and burns:

A good composicioun þat þou schalt vse in somer in woundis & in vlceribus þat ben hote & in every place þere þe skin is aweie in a Mannes body, of riding, eiþir of pustulis, or of fier, or off hoot watir & it is clepid vnquentum Rasis , þat is maad of þis maner . R. olij ro. 3 iij., cere , in þese regiouns þat ben hoot & in somer 3 .ij., & aftir þe regioun þou schalt do þerto dyuers quantite of wex, ceruse, 3 .j., camphore , 3 .j., þe whitis of ij,eggis . Pou schalt make i in þis manner . First þou schalt grinde .ij., almaundis blaunchid & stampid in a morter & þan do out þe almaundis þat ben to-broke of þe morter, & make clene þe morter & þan leie þeron camphore & grinde it smal & þan do þerto ceruse & grinde it smal & þan do þerto oile & grinde hem wel togidere wiþ þe pestel . & whanne it is almoost coold, þan do þerto .ij. whitis of eiren & meue hem wiþ a sclise longe, for þe more þat þei ben stirid togidere þe bettir it wole be (ms. Oxford, Bodleian Library 1396, f. 261a).

Cauterizian and Corrosive Medicaments

Of *medicyns* cauteratiuis & corrosiuis

Regarding cauterizian and corrosive medicaments, in his sixth book, Lanfranco informs these remedies are used in surgery, to heal different pathologies. Some are mild, some strong, some very strong. Furthermore, it is possible to get simple or compound medicament, depending on whether small or large flaps of meat have to be removed:

Corosiuis & cauterizatiuis we vsip̄ in cirurgie in manie causis & of corosiuis summe ben feble, & summe ben strong & summe beþ more stronger . These ben feble herodactilis, aristologia, brionia, gencina (lat. gentiana), vitriolum adustum & þese hanueþ moost vertu in moist bodies. More stronge ben þes: vitriolum not conbustum, tapsis, pees miliui[32], apium rampnum (apium ranarum siue apium rampnum[33] cortex viticelle . And þese ben more strong flos eris, viride eris, es vstum, arsenicum, sulphur . Also þese ben more strong calx viua maad of stoonis & of schellis of eiren & oistris & strong lye, & arsenicum sublimatum & watir maad of þese þingis & of þese *medicyns* þou miȝt make *medicyns* boþe simple & compound, whiche þou miȝt vse whanne þou wolt take awei deed fleisch, more strong & lasse strong as þou seest þat it is nede þerto (ms. Oxford, Bodleian Library 1396, ff. 262v-263r).

These remedies consist in powders and one of these is used to remove dead flesh next to the wounds:

A poudre þat wiþouten ony greuauce & liztli fretiþ deed fleisch R. viride eris, hermodactulorum, aristologia rotunda, make þerod poudre & kepe it in a drie place & whanne þou wolt do awei deed fleisch take lynet eiþer lynne clooþ & wete it with þi spotil & leie it in þe poudre, & turne it vp & doun & leie it vpon þe place (ms. Oxford, Bodleian Library 1396, f. 263a).

Mollificative Medicaments

Of mollificatif *medicyns* or softenyng

These remedies are used in four cases: a) when you need to heal a rather hard wound; b) when the edge of the wound goes beyond the joint; c) when the edge of the wound has been beyond the joint for a long time; d) when the edge of the wound is corrupted and the wound has been closed poorly or even when a broken bone has not healed:

We vsip̄ þese *medicyns* þat ben .iiij. in euriri cause . Oon cause is þis whanne þe mater þat þou wolt resolue in swiþe hard, for þan oonli wiþ resolutiuis as it is aforseid þe sotil materie wole resolue & þat oþir part wole bcome hard & þan þou muste make mollificatiuis. The .ij. cause is þis whonne ony lyme is to beside ouþir out of þe ioyncte, ... þe place wole be hard & þe patient mai not meue þerwiþ þan þou muste do þerto mollificatiuis til þe lyme be bettere as it is aforseid . The .iiij. cause is þis whanne ony lyme þat haþ ben out of ioynct longe tyme, þan þou muste make þingis forto make þe place more aȝen . The .iiij. cause is whanne a lyme is corrupt & is yuel ioyned & makiþ al þe lyme out as whanne boon is to-broken & is not ioyned , þan þou muste make þe boon aȝen & bringe it into

his propre place as it schulde be . In alle þese causis we mote vse *medicyns* þat ben mollificatiuis, as ben þese : camomille, mellitote, fenigrec, semen lini & f& rootis of malua visci, soden in water (ms. Oxford, Bodleian Library 1396, f. 268 a-b).

Conclusion

Lanfranc ends his work affirming

And þe help of god I bad in þe firste bigynning of þe book ffor of goddis grace I am þat I am & goddis grace was neuere voide in me. And þe ende of þis book was fulfillid þe noumbre of zeeiris from goddis beyng . M.CC. Nonagesimo sexto (ms. Oxford, Bodleian Library 1396, f. 269b).

'And by God help, whom I have prayed at the beginning of my work, and to whom I have asked for the grace, I have now come to the end of this book, after several years, thanks to God's help, in 1296' From all the aspects covered in his work, Lanfranc is of great help in finding solution of every kind of pathology, using of types of products from flowers to resins. He sometimes exposes cases in which he was the protagonist in treating various diseases, both in adults and in children. For this reason, Lanfranc's aim was that the doctors who would come after him could learn from him and his work. From his effort, a complete and accurate compendium derives, which is worthy of being considered the first real treatise on medicine and surgery written in France.

Bibliography

Sergio Alleori, Lanfranco da Milano: vita ed opere, Arti Grafiche E. Cossidente, Roma 1967 An Anglo-Norman Pharmacopeia (ms. Oxford, Bodleian Library 761), edited by Antony Hunt, Anglo-Norman Text Society, Oxford 2017 Anthony Hunt, Anglo-Saxon Medicine, Brewer, Cambridge 1994 Edward J. Kealey, Medieval Medicines, a Social History of Anglo-Norman Medicines, The John Hopkins University Press, Baltimore 1981 Lanfranc's Science of Chirurgie, edited form the Bodleian Ashmole ms. 1396, (ab. 1380 A.D.) and British Museum Additional ms. 12056 (ab. 1420 A.D.) by Robert V. Fleischhacker, Dr. Phil. Part I-Text, Pub. for the Early English Text Society, by K. Paul Trench, Trübner & Co., London 1894 Roman Sosnowski, Volgarizzamento della Chirurgia parva di Lanfranco da Milano nel manoscritto Ital. quart. 67 della collezione berlinese, conservato nella biblioteca Jagellonica di Cracovia, Jagiellonian University, Krakow 2014 Mario Tabanelli, Tecniche e strumenti chirurgici del XIII e XIV secolo, Leo S. Olschki, Firenze 1973

Mario Tabanelli, Un chirurgo italiano del 1200 Bruno da Longobucco, Leo S. Olschki, Firenze 1970

References

1. Cristina Raffaghello (2019) The Medical-Surgical Lexicon in the Middle English Version of Lanfranc's *Chirurgia Magna*. American Journal of Biomedical Science & Research 3(4): 349-351.
2. *Chirurgia parva* is dated about 1290.
3. In this work, all citations are based on the *folii* of both manuscripts, in which the Middle English translation came to us. However, we have to

- consider that London *codex* stops at the fourth chapter of the second treatise, book 3, chapter 4 (f. 86b) about the medicaments regarding the bones of the hand.
4. Galien was a physician coming from Pergamum, considered the founder of scientific medicine in Greece. Two aspects were decisive in his medical studies: anatomy and comments of Hippocratic medicine constituted two decisive aspects in his medical studies. As many as 4000 works relating to anatomy, pathologies and therapies were attributed to Galen; among which 108 (written in Greek, in Arabic and Latin) came to us. The most relevant ones are *Methodus medendi*, *De compositione medicamentorum* and *Ars medica*.
 5. Avicenna is the author of *Qanur* (Lat. *Canones*), an encyclopedical work, in use up to 17th century. *Qanur* is based on the medical knowledge coming from Salerno School. Avicenna's *Qanur* was translated from Arabic into Latin by the physician Gerhard of Cremona: 1114-1187.
 6. Rhazes was a physician from Teheran, who studied at medicine School of Bagdad. He probably wrote 133 works, as *Al Hari* (better known as *Contineus*) concerning therapies in general. Rhazes' work was partially translated from Arabic into Latin by Costantine Africanus (mid of 11th century) and Charles of Anjou (1279). On the contrary, Rhazes' *Kitab al-tibb al-Mansūri* (Lat. *Liber medicinalis Almoosorem*), divided into ten books and regarding dietology, therapy, hygiene and toxicology, was translated into Latin by Gerhard of Cremona. Furthermore, Rhazes was the author of *Kitab Al-Jadari Wal-Hasba* (Lat. *De pestilentia*), related to (besides plague) viral diseases, as scarlet fever and smallpox.
 7. Probably roses had to be left in olive oil; however Lanfranc does not specify it.
 8. Sandragoun (*sanguis draconis*) is the gum of the dragon-tree. Other resins used by Lanfranc were *asa fetida*, i.e. a sort of gum pressed out of a certain plant, which grows in Persia, *serapinum* (*sagapenum*) a gum resin from the *Ferula Persica*; *terebrintine* a resin from *Pistacia Terebinthus*.
 9. In his work, Lanfranc is not used to specify what the doses consist of or what he means by parts.
 10. Probably Lanfranc refers to white and light wine.
 11. In the Middle Age, cancer is often quoted in the meaning of gangrene, as referred in the two *Medical prescriptions from Basel* one against epilepsy, the other against cancer. The two prescriptions were written down in Fulda (9th century) in Old High German (Eastern Franconian dialects).
 12. *Tute* was also called *oxidum zinci impurum* (see Arabian *tūtā*, Old French *tutie*).
 13. Also in this case, Lanfranc does not explain what cold herbs are.
 14. *Dragagantum* corresponds to *tragacantha* which is a root spreading all about in spring. From this root it is obtained a liquor of bright colour and sweet in taste, which is commonly called *dragagantum*.
 15. *Citoniorum* should correspond to *cotonea malus*, *Cydonea*.
 16. *Lulepium*, a kind of scirup.
 17. Latin *ophthalmia*, *vlcus*, *albula*, *macula simplex*, *punctus*, *rubeat*.
 18. The employment of breast milk in eye-disease treatment is also mentioned in Galien's *De compositione medicamentorum*, book IV, chapter 3.
 19. For *colature*, Lanfranc refers to a thick sirop.
 20. For *swete bred*, Lanfranc refers to *pane azimo*, i.e. unleavened bread.
 21. The patient must not eat too much until he is completely satiated (Latin *satullus* > Old French *saoulée*, vs. Middle English *saule*).
 22. The squillitic is a kind of winegar, obtained from the onions roots.
 23. Bartholomeus Anglicus (1200-1272) was a Franciscan friar, author of *De proprietatibus rerum* (composed in the middle of 13th century, divided into nineteen books). Although this work represents Lanfranc's main source, he never mentioned Bartholomeus' name.
 24. *De proprietatibus rerum* was translated from Latin into Middle English by John De Trevisa between 1397 and 1398.
 25. It is a wrong translation from Latin text *alopecia quae sine cutis est vulnere*.
 26. William of Saliceto (1210 or 1219-1278 or 1285) was a pupil of two Italian surgeons, as Bano del Garda and Bruno of Longobucco. He worked in Piacenza, Cremona, Milan and Verona. In Milan he became Lanfranc's master, from whom Lanfranc himself treasured his teachings. William was the author of *Chirurgia*, coming down to us in two different editions (1268 and 1276), divided into six books and preserved in the following manuscript tradition: mss. Munich, Bayerische Staatsbibliothek, Lat. 259; Oxford, Bodleian Library, Lat. 19; London, British Library, Lat. Sloane 277 and Paris, Bibliothèque Nationale, Lat. 7138.
 27. We do not know to whom the translation of this work from Latin into Middle English is attributed.
 28. *Citrull* is a sort of cucumber or pumpkin of a citron-cloour.
 29. *Lactuca sativa* or *Hortensis*, that is garden lettuce.
 30. *Volibilis* corresponds to Old English *berebinde*
 31. *Basilicon* is an ointment, also known as *tetrapharmacum*, as it consisted of four ingredients, i.e. pitch, rosin, wax and oil.
 32. Called in Latin *vulpi*, in English *crow-foot*.
 33. *I.e. ampinus uncus*, a grass growing on the meadows.