Lady Ysabel de la Oya
Queen's Prize 2017
Barony of Forgotten Sea & Shire of Cum an Iolar

A Dish to Soothe

The lady of the house has been struck down with a fever again, same fever from four days ago, and from four days before that. The pattern this autumn has been clear: three days of relative health followed by a day of fever to repeat again. When the attacks first started, a few weeks ago, the physician was called, at great expense to the manor. He poked and prodded, examined fluids, and bled her. He pronounced her to have the ague, and as the fever was a quartan fever, the lady suffered from too much black bile. The manor cook and kitchen staff were ordered to come up with a menu for the poor lady that she would both enjoy eating on days she felt well, and also help restore her humors, and not tax her weakened body.

Humors

A conversation of medieval health and food theories would be impossible without the Greek and Roman physicians that dominated scientific knowledge all throughout the medieval and renaissance periods[(1)].

Hippocrates (approx 450-370 BCE) is hailed as the father of medicine and wrote the Hippocratic Oath[(1)]. Hippocrates concluded that health was influenced by four humors, or body fluids These fluids were a combination of cold to hot and moist to dry. Health was a result of a balance of these humors. The liquids consisted of blood, phlegm, black bile, and yellow bile[(2)]. In the medieval period, Hippocrates was credited with most work in the Hippocratic school of thought, although modern scholars believe that some were written by others in this school. Some Hippocratic writers called these fluids humors. A son in law of Hippocrates wrote a work that linked humors and explained how they can be influenced by diet, but this work is lost, and its existence is only known due to the work being cited by other writers[(1)].

A Greek physical named Galen of Pergamum (29-216 CE) was the first to link four temperaments of mankind, humors, and the elements of nature. While Galen took inspiration from his Greek and Roman predecessors and their various schools of thought, he was heavily influenced by Hippocrates. Galen's work and belief system dominated western medical idea well past the renaissance period. The reasons for this dominance are many. He was the personal physician to Roman Emperor Marcus Aurelius, and thus was considered an authority. A great number of his writings survived past his period, and he authored a stunning number of texts- over 400. His works "De alimentorum facultatibus" (On the Properties of Foodstuffs), "De sanitae tuenda" (On the Preservation of Health), and "De probis pravisque alimentorum succis" (on Wholesome and Unwholesome Foods) cover topics ranging from how to use foods, what the ideal diet should be for people of certain temperaments and humors, and general health guidelines. His writings contained a self-superior attitude and were full of accusations of other writers as being fraudulent[(1)].

The majority of the following will have its origin in Galenic works and ideas.

A humor is essentially one of these body fluids that regulated all essential aspects of the body. Have one out of alignment, and an illness would manifest[1]. Each body fluid had characteristics that shaped them and temperaments they caused. Blood was hot and moist, phlegm was cold and moist, yellow bile was hot and dry, and black bile was cold and dry.

Although the good health stemming from balanced humors might suggest the view that they are found in equal proportions, that is not the case. The fluid most abundant was blood. There was a quarter as much phlegm as there was blood. Next, yellow bile was found in quantities of 1/16 as blood. Black bile was present in only tiny amounts, as it was 1/64th as much as blood. A perfect balance of these fluids was rare and most people were believed to have an excess of a particular humor. This natural imbalance would shape someone's susceptibility to disease and their personality[1]. An excess blood would lead to a sanguine temperament (cheerful), yellow bile a choleric temperament (quick tempered, angry), black bile melancholic (sad), and phlegm a phlegmatic temperament (languid)[1][3].

It was also believed that you could gain knowledge about someone's humors just by looking at their complexion. Ruddy people are sanguine and have an abundance of blood. Phlegmatics will be pale with a waterish, washed out color. Cholerics are yellowish tinged. Melancholics are dark with sunken eyes [1].

The Ague

The identification of intermittent fever as malaria is largely credited to Hippocrates and his school. Hippocrates found that malaria caused intermittent fevers that returned on a regular schedule: every day, every three days, or every third day. Centuries later Galen explained that malaria was a disorder of the humors[4].

In order to treat any fever, it was very important to classify it, as its cause would be determined by what type of fever and how often it occurred. A corruption of a humor would produce fevers of differing lengths. An imbalance of the blood results in continuous fever. Too much yellow bile results in a tertian fever (returning every three days) and an abundance of black bile results in a quartan (returning every four days). If the fever returns every day, then phlegm is to blame. [5]

Medieval literature abounds with mentions of tertian (recurring every three days) and quartan (recurring every four days) fevers- which is often determined to be malaria. Evidence of malaria can be found over most of Europe and span much of the medieval and renaissance periods. Mentions of the ague, (the medieval English word for malaria), tertian and quartan fevers, or symptoms of the disease can be found in literature from Chaucer and Dante to Shakespeare [6].

Food as Treatment

The ideas about food and health were dominated by Galenic teachings in the middles ages and renaissance. It was believed that a person could alter their body's humors by controlling what they ate, and a multitude of

herbals were published that defined what humors each food stuff consisted of. Using this humoral system of defining food, one could tailor the diet of a phlegmatic by introducing a diet full of hot, dry foods[1].

It is the effect of the food item that determines its humoral makeup, and not necessarily physical characteristics. A food that is a liquid, such as the juice of a citrus, could be considered dry because it causes the mouth to pucker, and thus dry the body. Pepper, while not being hot in physical temperature, heats the body due to the richness of its spice. However, it should be noted, that humors of a food often did match its physical characteristics, but the reason for the classification lies with the effect, which so happens to match its physicality [1]. While the classical or medieval dietitian did not possess the scientific insight we do today, they used food's qualities to determine its effect of its body. Color, taste, and how much body waste is produced helped define its effect[1].

It was also believed that the flesh of meat continued the humors that matched the behavior of that animal. According to Galen, a pig's flesh was the closest to human, was better to eat than other meats. A pig is closer to humans than other food animals due to their similar dietary habits and similar internal structure. The closer the substance was to the human body, the more nutritious it was since you could digest more of it[1].

Galenic teachings also established a system of degrees of intensity that ranged from one (lowest) to four (highest). A food that is hot in the third degree will heat the body much more than one at the first or second degrees. Foods would be ranked on this scale in both heat and moisture. It should be noted, however, that food doesn't always have an equal degree of moisture and heat. For example, ginger is hot in the third degree but only moist in the first degree. There are, of course, foods that equal in temperature and moisture, such as laurel leaf is both cold and dry in the third degree[3].

Social class also played a hand in defining what food you should eat, in the form of physical labor. It was usually the case that those of higher social class labored less. Laborers were more active thus their body produces more heat, and higher heat helps digest colder foods. As food was digested very slowly, someone of the leisure class didn't produce enough body heat to burn up such coarse, unrefined food, it would grow putrid in their body before digestion begins. Conversely, refined food would be burned up by a laborer's body before it could take nourishment.[1].

Spices, especially hot ones, were used to aid in digestion. A hot spice (garlic and ginger are included in this) would help with blood flow. As meats were often cold and dense, a hot spice would help negate these effects[1].

Recipes and Redaction

The 15th century English manuscript Two 15th Century Cookery Books contains the following recipes.

"Beef y-Stywyd. Take fayre beef of þe rybbys of þe fore quarterys, an smyte in fayre pecys, an wasche þe beef in-to a fayre potte; þan take þe water þat þe beef was soþin yn, an strayne it þorw a straynowr, an sethe þe same water and beef in a potte, an let hem boyle to-gederys; þan take canel, clowes, maces, graynys of parise,

quibibes, and oynons y-mynced, perceli, an sawge, an caste þer-to, an let hem boyle togederys; an þan draw it þorw a straynoure, and let it be stylle; an whan it is nere y-now, caste þe lycour þer-to, but nowt to moche, and þan let boyle onys, an caste safroun þer-to a quantyte; þan take salt an venegre, and cast þer-to, an loke þat it be poynaunt y-now, & serue forth.[7]"

Translation
Beef Stewed. Take fair beef of the ribs of the fore quarters, and smite in fair pieces, and wash the beef in a fair pot, then take the water the the beef was seethed in, and strained it through a strainer, and seeth the same water and beef in a pottage, and let them boyle together, then take cinnamon, cloves, mace, grains of paradise, cubits, and onions minced, parsley, and sage, and cast thereto, and let them boil together, and then draw it through a strainer, and let it be still; and when it is near, cast the liquor thereto, but not to much, and then let boil onions, and cast saffron thereto a quantity; then take salt and vinegar, and cast thereto and look that it be strong enough and serve it forth.

And

"Boor in brasey. Take the ribbes of a boor while thai byn fresh, and parboyl hem tyl thai byn half sothen; then take and roste hom, and when thai byn rosted, take and chop hom, and do hom in a pot, and do therto gode fresshe brothe of beef and wyn, and put therto clowes, maces and pynes, and raisynges of corance, and pouder of pepur; and take onyons and mynce hom grete, do hom in a panne with fresh grees, and fry hom, and do hom in the potte, and let hit wel sethe al togedur; and take brede stepet in brothe, and drawe hit up and do therto, and colour hit with saunders and saffron; and in the settynge doun put therto a lytel vynegur, medelet with pouder of canell; and than take other braune, and cut smal leches of two ynches of length, and cast into the pot, and dresse up the tone with the tother, and serve hit forthe[7]*."*

Translation
Braised Pork. Take the ribs of pork while they be fresh, and parboil them till they behalf softened; then take and roast them, and when they be roasted, take and chop them, and do them in a pot, and do thereto good fresh broth of beef and wine, and put thereto cloves, mace and pine nuts, and raisins of currant, and powder of pepper; and take onions and mince them great, do them in a pan with fresh grease, and fry them, and do them in a pot, and let them seethe altogether; and take bread seeped in broth, and draw it up and do thereto, and color it with sandalwood and saffron; and in the setting down put thereto a little vinegar, meddle with powder of cinnamon; and then take other braune, and cut small pieces of two inches of length, and cast into a pot, and dress up the two with the other, and serve it forthe.

My redaction is based on the patterns of meat stew set forth in both fifteenth century English recipes.
The basic recipe pattern is:
Meat
Broth
Vegetables
Spices
Acid (wine or vinegar)

Fat (optional)
Bread (optional)

The bread and fat have been deemed optional due to the presence in one dish but not the other.

Redaction
1 lb pork shoulder.
2 cups chicken broth
1 medium onion
1 medium turnip
1/2 cup chickpeas (if using dried, soak overnight)
7 grains of long pepper
10 cloves of garlic
½ ounce of dried, rehydrated ginger root, grated
¼ cup white wine vinegar
1 tablespoons almond oil
1 oz lard
½ cup bread crumbs (approx)
Salt to taste

Method
Cube the pork. Chop the onions and turnips. The onions and turnips should be chopped to a medium size ranging to large. Grate the garlic and rehydrated ginger root. Crush the long pepper in a mortar and pestle, making it a fine as possible.
In a cook pot, fry the onions and pork in lard. Cook the onions and pork for about half an hour, until the pork is no longer pink. Add all other ingredients except for the bread crumbs. On white coals (or medium heat if using a stove), cook for about half an hour stirring from time to time, it should be bubbling, but not boiling over too much. Add this stage add breadcrumbs as necessary to thicken the stew. Add less than you think you may need since they will swell- you can always add more later. Cooking time will vary but I found it to take about an hour and a half in total time while cooking over coals. The stew will be done when the turnips reach your desired consistency.

Reasoning
Almost every ingredient was chosen both for its humor and how well their flavors would work well together. As the condition I am trying to treat is caused by an excess of black bile, and therefore cold and dry, most foods should be hot and moist to some degree.

Even though pork is cold in the second degree and moist in the first degree, it was used due its closeness to the human body and better digestibility than other common meats. I have counted the lard as being pork when balancing the humors. The extreme hotness of the garlic (being both hot and dry to the fourth degree) will combat the coldness of the pork and help to digest it. Vinegar is cold in the second degree and dry in the first [3].

I chose vinegar over wine simply so I could cook the dish on site (no alcohol is allowed on site). Pork, garlic, and vinegar are the only ingredients that fall outside of the hot and moist spectrum I am aiming for.

Broth is hot in the second degree and moist in the third. Chicken broth was chosen over pork broth for added depth of flavor. Onions are hot and moist in the fourth degree and are therefore ideal to balance the chilling, drying effects of the auge. Turnips are hot in the second degree and moist in the third, as are chickpeas. Long pepper is hot in the third degree and moist in the second. Ginger is hot in the third degree and moist in the first[3]. I chose to use rehydrated, dried ginger due to the long transport time to Europe in period, and that fresh ginger root would most likely not survive the trip (also it was fun). Almond oil is hot in the second degree and moist in the third[3]. Bread, oddly, has no dominant humor, as it is one of the few foods that is perfectly balanced[1].

Left: The Humours portrayed as Four Men. [8]

Works Cited

1. Albala, Ken. *Eating Right in the Renaissance*. University of California Press, 2010

2. Dellureficio, Anthony J. "The Biology Book: From the Origin of Life to Epigenetics, 250 Milestones in the History of Biology.. By Michael C. Gerald, with Gloria E. Gerald. New York: Sterling. 528 p.; ill.; index. 2015." The Quarterly Review of Biology 91.2 (2016): 199-200. Web.

3. Scully, Terence. “A Cook's Therapeutic Use of Garden Herbs.” *Health and Healing from the Medieval Garden*, edited by Peter Dendle and Alain Touwaide, The Boydell Press, 2015

4. Kakkilaya, Bevinje Srinivas. “Tag Archives: Galen.” *Malaria Site*, Dr. BS Kakkilaya, 25 Feb. 2015, www.malariasite.com/tag/galen/.

5. Glick, Thomas, et al. “Theoretical Medicine .” *MEDIEVAL SCIENCE, TECHNOLOGY AND MEDICINE: an Encyclopedia*, ROUTLEDGE, 2017.

6. Reiter, Paul. “From Shakespeare to Defoe: Malaria in England in the Little Ice Age.” *Emerging Infectious Diseases*, vol. 6, no. 1, 1 Feb. 2000, pp. 1–11., doi:10.3201/eid0601.000101

7. Austin, Thomas. *Two Fifteenth-Century Cookery-Books: Harlein MS. 279 (Ab. 1430), & Harl. MS. 4016 (Ab. 1450), with Extracts from Ashmole MS. 1429, Laud MS. 553, & Douce MS. 55*. Boydell & Brewer, 2000.

8. Matterer, James L. "The Preparation of a Medieval Feast following the Four Humour System of food and diet." Messe it Forth. Gode Cookery, n.d. Web. 01 Apr. 2017. <http://www.godecookery.com/feastpre/feastpre.htm>.