

# Fish and Cancer in Early Modern Paduan Consilia, A Galenic Question in the History of Dietetics

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## ABSTRACT

In the Therapeutics, to Glaucon, Galen devotes a chapter to 'The causes and treatment of cancer and elephantiasis'. As for diet, he writes: 'Give rockfish, give all types of birds, except those living in marshes.' This article deals with the dietary recommendations concerning rockfish in the consilia relating to cancer and which were published in Padua in early modern times. The Paduan authors are correlated with their different generations in accordance with the periodization of Renaissance dietetics. The term cancer and the localization of the organs which are affected (breast, uterus, liver, nostril, lip) are explained and situated with reference to the patho-physiological knowledge of the time. Galen's statement about rockfish is specified in his *On the Powers of Foods*, and the exclusion of other fish is justified by their viscous nature. Special attention is given to the eel, as the latter is described in the *Tractatus de piscibus* of the Hortus sanitatis (end of the 15<sup>th</sup> century). The second part of the article is devoted to this question: was the Paduan dietary regime for the treatment of cancer similar to that prescribed for other diseases? Among the latter are mentioned: arthritis, disturbances linked with the reproductive organs or with sexual activity, stones in the kidneys and in the gall-bladder, 'headache with tinnitus', etc. If some fish, which are too viscous, have to be avoided, pike, sea bream, red mullet are considered to be healthy food.

**Keywords:** Paleo; Oncology; Fish; Nutrition; Padua; Early modern times; Dietetics

## INTRODUCTION

In the treatise *Ad Glauconem de medendi methodo* (Therapeutics to Glaucon) Galen devotes chapter twelve of the second book to 'Causes and treatment of cancer and elephantiasis'. He writes: 'As for diet, you may prescribe profuse quantities of the juice of the ptisana, the serum of milk and vegetables, mallow, saltbush, chard, and gourd in season. Give rockfish, give all types of birds except those living in marshes. It is well-known that serum lactis was whey and that the ptisana was a decoction of hulled barley. The prescription of the latter is especially revealing, as it was supposed to have an important virtue of humidifying when it is a question of curing a disease that burns and desiccates the whole body.'

This article deals with this rockfish and the varieties of fish which are recommended like the different types of birds in a special kind of literature of the Renaissance, namely the

epistemic genre of consilia which are concerned with cancer and which were published in Padua.

The nature of the disorders treated under the words cancer, carcinoma, cancrus affection or scirrhus, the preliminary and virtual form of the disease before it is said to be lent his continuous support despite the fact that as an historian of Romance philology, I have no medical education and I am also deeply grateful to David Adams, Emeritus Professor of French Enlightenment Studies, University of Manchester, for his additions and for having corrected the English version of this article. Many thanks to Muriel Collart my scientific collaborator, Université Libre de Bruxelles, for her help. I have also received useful comments, material and encouragement from Melitta Weiss Adamson, Ken Albala, Dina Bacalexi, Valérie Boudier, Naama Cohen Hanegbi, Carl Deroux, Luke Demaitre, Violaine Giacomotto-Charra, Guy Faguet, Brigitte Gauvin, Laura Giannetti, Ian Lancashire, Rachel Laudan, Donatella Lippi,

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Laetitia Loviconi, Rita Mazzei, H. Newton, Marilyn Nicoud, Jacques Rouëssé, and Sascha Salatowsky. My wife Alice, my children and my granddaughter Nora have supported me in many ways by their consilia from the beginning of my research. become ulcerated, will not be discussed here. In dealing with the medieval terminology of the disease Luke Demaitre notices its relative inconsistency: one ailment could have several names and one term could refer to widely varying conditions. He methodically considers the lack of distinction made between several diseases by early Latin compilers, including Copho, Gariopontus, Petrocellus, John of Saint Paul, and other Salernitan masters. Confusion was especially fostered between cancer and cancrena or gangrene as they were both supposed to be due to an excess of yellow bile, according to Avicenna. For example, in the *Breviarium* attributed to the famous Arno of Vilanova (c. 1240-1311), a chapter is entitled *On fistulas, cancer, lupus, and the like*. Demaitre's approach to the question of the real diseases with which the consilia deal will be adopted, when he explores these notions with an eye on their medical implications for the time and on the attitudes evoked in definitions and analogies, rather than on their closeness to the latest perspective on modern mentalités and mythologies of cancer'.

This is not the place for a long review concerning the genre of the medical consultation, the object of many studies by Nancy G. Siraisi, Gianna Pomata, Monica Calabritto, etc. Marilyn Nicoud reminds us that it designates a class of texts which are clearly identified, particular and autonomous, even if it maintains close and sometimes ambiguous links with other genres, especially with diets and recipes for health. Generally, the consilia deal with a particular patient and a disease for which a physician from whom the advice has been sought proposes in writing specific types of care, often organised into three distinct parts: after a description of the symptoms allowing the formulation of a diagnosis (the *casus*), the treatment consists in a diet which is based on the six non-natural things (*diatea*), followed by therapy using a *pharmacopoeia* (*potio*).

The genre of the consilia flourished particularly in Italy, with the rise of medical humanism in all the important universities, as it has been shown by Paul F. Grendler. A pioneer and leading figure of the movement, Niccolò Leonicensi (1428-1524) exemplifies a part of this regional flowering as he taught in Bologna, Ferrara and Padua, and Vivian Nutton has written that this last town hosted Europe's leading medical faculty. Some of the most important physicians in the city will be taken into account here, as they deal with cancer. They are generally well-known, especially due to the Treccani, as the *Dizionario Biografico degli Italiani* is called.

## PADUAN DIETETICS ON CANCER AND FISH

David Gentilcore states that the two most influential works on early modern diet were Galen's *Hygiene*, known in Latin as *De sanitate tuenda* (On the preservation of health) and his *De alimentorum facultatibus* (On the faculties or powers of aliments). Humanist medicine inherited a Galenic system which was supposed to keep the well-balanced, healthy body in its

natural state—the maintenance regimen or to restore it when it was disturbed the correction regimen. Matching the proper foods to the individual was the key to this entire system. Given that most bodies were considered unhealthy and thus to some extent unbalanced, correction tended to occupy pride of place in Renaissance regimen. Thus, Galen introduces us to the theory that will structure Renaissance diets through the combination of the four qualities—hot, dry, moist and cold—whose mixing constitutes the four humours of the body: blood, phlegm, yellow and black bile. The correction regimen had to re-establish as far as possible the balance of the humours according to the properties or qualities of food.

As Galen's treatment of cancer recommended rockfish in the *Therapeutics*, to Glaucon, he specified the reason for the statement in *On the Powers of Foods*. He wrote: There is a considerable difference between animals that live in lakes, marshes and swamps, and those that live in mountains and dry areas. The flesh of animals is analogous to these places: either dry, devoid of excrementitious matter or easy to digest; or moist, excrementitious and difficult to digest.

The mullet which live in the sea, where there are rocks and cliffs, have better flesh, because they have to struggle against them and the wind. But those who live in meads or channels that flush the lavatories in the cities are excrementitious and rather slimy.

With the generation of Paduan physicians who worked in the first half of the sixteenth century, the recommendation to avoid fish in an anti-cancer regimen was adopted by Giovanni Battista Da Monte (1489-1551). If Padua had Europe's leading medical faculty, Da Monte was, according to Nutton, its leading professor. Monica Calabritto has defined him as a physician steeped in the humanistic renewal of the classic tradition, who was especially interested in the rediscovery of Galen's work. Thus, he tried to introduce the latter's method of healing to replace the confusing way of approaching diseases transmitted by medieval physicians and 'used individual cases to illustrate lectures of practical medicine and to show students how to apply general rules to specific cases in his bed-side visits.

Da Monte has been described as the member of a specific generation. Ken Albala has suggested that three periods need to be distinguished among the authors who dealt with food and disease at the Renaissance. The first period is entitled *Courtly Dietaries* (1470-1530). Da Monte, who was called to teach practical medicine at Padua in 1539 and published his *Consultationes medicinales* (Medical Consultations) from 1554 onwards, could be said to belong to the second period, which Albala calls *The Galenic Revival* (1530-1570).

Da Monte published a consultation dealing with a scirrhus of the liver obstructions that show a danger of dropsy, which affected a very learned young man from Udine named Luvisinus (C1554/61). The latter is advised that he must avoid fish, which are no good, except for those living in rocks. Another consultation concerns a *noli me tangere* (literally do not touch me) that is to say, a disease of the face. The sick person is suffering from an ulcerated lip burnt by melancholic material, with a disposition to cancer, prescribed in Italian (C1583/116).

Da Monte repeats: beware of all fish, especially those caught in marsh.

Fish in general is also not allowed in two other cases of *noli me tangere*: one for *apostematibus cancris* in the nostrils of a German (C1554/48), another for a polyp of the nostrils tending to *cancrum* (C1554/49). In both cases, *cancrosus* could mean cancerous or chancrous. It happens that an author, instead of using the ambivalent *cancrosus*, uses *cancerosus* (Claudini 1607/122). Giulio Cesare Claudini (c. 1550-1618) was perhaps the most interesting author of *consilia* in Bologna, where he took his medical degrees in 1574 and started to teach practical medicine in 1587. The Bolognese Studium was at this time a center for advanced medical research, especially in the field of anatomy, and it recruited eminent figures such as Gaspare Tagliacozzi (1545-1599), a forerunner in plastic surgery. As Paolo Savoia observes, it is striking that Claudini, who was a contemporary, friend, admirer, and colleague of Tagliacozzi wrote about cases of syphilis but never mentioned his friend's surgical procedure to correct facial mutilation. In any case, he may have belonged to what Ken Albala has called, in his chronological division of Renaissance dietetics, the period of The Breakdown of Orthodoxy (1570's-1650) if we could consider as homogeneous a period where some authors definitely belong to another generation than Claudini's. Living in an era and in an academic world of modernism, the latter shows by his silence concerning Tagliacozzi that he is not completely modern himself.

Claudini published his *Responsum et consultationum medicinalium* in Venice in 1606. That year, Padua lost somebody who probably was the most important professor in the faculty of medicine: Girolamo Mercuriale (1530-1606). Both may be considered as not belonging to Harvey's generation. Where could they be classified in Albala's time-line? It is not possible to discuss the question in relation to Eckart's and Jütte's chapter on *Periodisierung* in their *Medizingeschichte*. Let us merely recall that some historians, since 1970, have stated that the beginning of modern times clearly occurred later than 1600, if we take into account the methodological connexion between theory and praxis.

Mercuriale also operates a transition between the second and third periods through his early relationships with Padua, in the 1550's, when he got in touch with Fallopius whom he mentions as his favourite *praceptor* in this university. It seems that he had mostly attended his lectures on surgery and anatomy. Thus, in 1569, he was appointed to the chair of practical medicine at Padua, but in 1587, around twenty years before he died, he left for Bologna university, where he occupied the chair of theoretical medicine.

Mercuriale published from 1587 to 1604 different volumes of *Responsorum et consultationum medicinalium* (Medical Answers and Consultations) which were gathered into a general edition in four parts (1620) where the articles have the same number as in the original. One of the most interesting deals with the case of a Spanish lady who suffered from a cancer of the right breast (C1620/IV, 59).

It is noticeable that he did not prescribe any diet for women who complained of a *scirrhus* of the breast or tumour of the uterus (C1620/I, 50, 59). In the first case, he writes to the colleagues whose advice has already been sought: I shall not prescribe any *victus rationem* because I am expecting that you have neglected no attention, knowledge and constancy to cure the patient submitted to your treatment, so that she could recover her previous state of health. In the other case, he does not think that it is useful to give a regimen as everything must have been carefully prescribed by the eminent physician involved in the treatment. However, he recommends some food greatly useful to repress the fire of the liver such as the juice of chicory.

Had Mercuriale become sceptical about the effectiveness of nutrition against hard diseases such as cancer? Or was he more concerned with the process of such a disturbance to health, after having been influenced by Fallopius' anatomical enquiries, in the revolution of the age of Vesalius? But other concerns might have stimulated an estrangement from the strict humoral program and its requirements on food. The French Guillaume Baillou (c. 1538-1616) prescribes giving a cancerous woman everything which could please her or excite her appetite-even food which is bad, but which she would like. His interest was directed more towards the realities of epidemiology than to the hypothetical cure of diseases.

Over and above the question of cancer, Mercuriale provides an interesting explanation concerning the exclusion of fish in another type of disease. Da Monte has forbidden fish, notably barbel and crab or crayfish, to a patient suffering from cataract: Any fish caught in Venice is particularly harmful (C1583/100). Mercuriale adds this information in a consultation on a severe case of *catarrh* which has produced infections of the eyes with distorted images of things (C1620/I, 45). In this case, the rejection of fish probably comes from Avicenna's remark that 'fish from ponds and swamps, but not those living among rocks and all those on the high seas, cause blindness (as old animals do except birds of prey reputed for their eagle-eye whose flesh may cure eye-diseases).

The exclusion had in fact previous roots, as we see in Galen's *De morborum causis* (On the Causes of Disease). Galen first explains that some diseases are of a double nature, for instance when the organs are roughened or smoothed abnormally. The organs that were once smooth are roughened, and those that were one rough are smoothed, the former when purged by harsh humours or medicines, the latter when lubricated by an oily moisture or a viscous humour. Roughness of the eyes is due not only to these factors, but also to harsh vapours, or because of dust and smoke, that is to say to noxious substance. Thus, an excess of the roughening agents is the cause of a certain degree of ulceration or erosion of the flesh-and of the cornea, when the patient's food is characterized by a viscous humour, as is stressed by the literature on the subject.

The eel is typical of what made fish unsuitable, as it is viscous, unctuous and phlegmy, as is repeated in Albala's documentation. The fact that fish cleaves to the fingers was taken as an indication that it would gum up the human interior. John MacBeath, in a *Regimen sanitatis* dating at least from the sixteenth century, stated that food which adheres to the fingers

when it is touched should be avoided, for it is tough presumably meaning here tough to digest rather than tough to chew. Albala also associates eels with bloodless fish like squid, and lumpfish without their skin were described as a soft jellied substance. The *Tractatus de piscibus*, one of the eight treatises comprising the *Hortus sanitatis* (end of the fifteenth century) reminds us that Isidore of Seville (sixteenth-seventeenth centuries) wrote that eel, produced by mud, is so viscous that, when you catch it, the more strongly you squeeze it, the more quickly it slips through your fingers. Tench (tencas in Da Monte's original) are also said in the *Hortus sanitatis* to feed in mud like eels and that is why tench has this colour, that is to say a muddy yellow. These two fish have a pleasant taste, but they are difficult to digest which confirms MacBeath's general statement about fish.

The *Tractatus de piscibus* also provides information about the relationship between mullet and diseases of the eyes. Isidore of Seville wrote that this fish reduces the acuity of sight (*Cujus cibo tradunt libidinem inhiberi et oculorum aciem hebetari*). The treatise repeats in another section this bad effect of the flesh of mullet.

The same type of recommendation against fish is ordered by Orazio Augenio (1527-1603) in the treatment of a woman whose cornea was perforated (C1592/102 r<sup>o</sup>-v<sup>o</sup>). A contemporary of Mercuriale, Augenio reached his academic peak in 1592 when he was appointed as professor of theoretical medicine at Padua, and published his *Epistolarum et consultationum medicinalium libri XII* (Twelve Books of Medical Letters and Consultations). He told to the patient that she must avoid hot and dry food, particularly from herbs and everything which fills the head, but that she could enjoy fish from the rocks, not only those from the sea, but also those from rivers, with a white juice. And he specified that he had often eaten them prepared in Galen's way.

Fish-like vegetable, fruits or cheese had generally a bad reputation, from a medical point of view. Mercuriale extended the nutritional warning to include oysters in several consultations, notably for kidney diseases (C1620/I, 105; II, 3, 15, 21, 31; III, 22, etc.). One of his contemporaries, Christoforo Guarinone (1540-1610), who may have studied under him in Padua, prescribed a *victus ratio* without any aquatic flesh to the wife of a doctor Todesch who suffered from breast cancer (C1610/513). Born in Verona, Guarinone received his degrees in Padua and was called, due to his fame, to the court of the emperor Rodolph II in Prague, so that, as a court physician, he showed, as M. Calabritto observes, a different social and professional profile from Da Monte, Augenio or Mercuriale, who were university professors. His *Consilia medicinalia*, published in 1610, deal with several tumours of the breast and uterus or of other organs, such as the jaws or throat, and elbow.

## FISH IN PADUAN DIETETICS IN RELATION TO OTHER DISEASES

Was the Paduan dietary regime for the treatment of cancer similar to that prescribed for other diseases? One of Da Monte's consultations is devoted to the fear of apoplexy which affects, among various unhealthy tendencies, William IV, duke of Bavaria, who died in 1550 (C1554/2). The patient must abstain

from fish, like the famous German suffering from epilepsy in another consultation reported in the same volume (C1554/3). Da Monte recommends the latter to avoid fish of any kind, but especially those from swamps, and eels, and those which are commonly called tench.

## DISCUSSION

Fish from marshes and muddy waters are also excluded in a case of haemoptysis or blood-spitting (Da Monte C1554/52). The question of the type of fish is open to discussion when one's complaint concerns a quite common disease which seems to be classified in the category of arthritis, as the organ is impacted by inflammation due to pituita coming from the head. This inflammation has attacked the knees—especially the left one of a Magnificent Venetian (C1554/95). What diet could be prescribed for him? I do not know, Da Monte recognises, which fish would be convenient, among almost all those that are kept in this splendid city. I am in favour of pike [lutium]; I would even approve the sea bream of Istria [auratas Istrianas], or the red mullet [mullobarbatas], that is to say the barbel [barboni]. The *Tractatus de piscibus* of the *Hortus sanitatis* observes that, if the pike feeds on toxic animals, such as toads, it is however said a healthy food for sick persons. The commentaries of the *Tractatus* identify the aurata as the sea bream and we have seen which defects were attributed to the red mullet or barbel. In another consultation about a tumour in both knees, Da Monte writes: 'In my opinion, avoid fish, especially those from Venice' (C1554/96). For a headache with tinnitus, Da Monte associates in the same sentence fish and every type of food which is vaporous, viscous and humid (C1554/26).

The rejection of fish also characterises disturbances linked with the reproductive organs or with sexual activity. It is prescribed for a noblewoman of Verona who complains about 'a weakness of the stomach with a flow of white menses' (C1554/75), just as it is recommended to someone who has suffered for ten years from 'a flow of white matter coming from the penis' (C1554/90). The man was a member of the famous Contarini family of Venice, which gave the city many doges and several procurators, cardinals, etc. The social status of a sick person did not prevent the doctor from naming him, even when the disease was of a rather intimate kind. Da Monte, who was proud of curing the famous cardinal, writer and humanist Pietro Bembo (1470-1547), names him in discussing a treatment preserving him from stones in the kidneys and in the gall-bladder, a subject already sufficiently commented on by Galen in relation to one of Hippocrates' Aphorisms (C1554/80).

Another professor of Da Monte's generation, Vittore Trincavelli (1489-1563), also rejects fish for a woman whose menses are white and who is complaining of fevers, headaches, spitting of phlegm, loss of appetite, etc. (C1586/6). After receiving his degrees in Bologna, he was registered as early as 1523 at the College of Physicians of Venice where he was the most remarkable figure of the new medicine which aimed to surpass the Arabs and go back to Hippocrates and Galen's Greek originals. That is why he contributed to the famous Galen's *Opera omnia* in Venice from 1541 to 1545. The three books of his *Consiliorum* and *Epistolarum medicinalium* were only

published in 1586, twenty years after his death. The second volume of his *Advices* provides 90 articles in 1587 and 127 in 1587

The warning against fish was probably a very common topos in early modern times. Tommaso Giannotti Rangoni (1493-1577), who also taught in Padua, promised better health if people could abstain from fish in his *De vita hominis ultra cxx annos protrahenda* (How to extend life until the age of one hundred and twenty years) a best-seller since its publication in 1550 [1-7].

## CONCLUSION

To get a broader understanding of dietary ideas about fish, the inquiry could be opened out in several directions. First it could be extended to encompass the literature devoted to the best way of staying healthy. For example, one of the authors who was most critical and explicit about traditional beliefs concerning food, and who expressed the most personal testimony on the subject, is Alvise Cornaro, who lived for about hundred years (Venice 1464/1467-Padua 1566). Most diligently, he tried the foods which would be the best for him among those which he liked or which could do no harm. He realised that many of them which he greatly enjoyed were in fact bad for him. Among them was mentioned fish alongside watermelons, green salads, pork, tarts, vegetable soups, pastas, etc.

Medicine, diet and taste may also be a subject of research, as Ken Albala has shown in *Food for healing: Convalescent cookery in the early modern era*. He took the example of Bartolomeo Scappi (c.1500-1577) whose *Dell'arte del cucinare* first published in 1570 represents the first major cookbook to contain an entire chapter on convalescent cooking. Scappi was personal chef to Pope Pius V and by his own account had numerous occasions to serve food to enfeebled and elderly clergymen, the latter being like scholars considered borderline convalescents because of their lack of physical activity. Albala concludes that there is an apparent disjunct between the physician's specific recommendations and the chef's recipe so that the details of convalescent cooking even as independent of nutritional theory could survive the gradual erosion of

humoralism. The latter seem to be drawn from common sense intuition rather than theory.

Another approach should explore the social and economic perspective adopted by David Gentilcore in his original *Food and Health in Early Modern Europe*, especially in the chapter entitled 'Rich food, poor food: diet, physiology and social rank'. A correlation with Renaissance painting is richly suggested in Valérie Boudier's *La cuisine du peintre*, and also by the still lifes painted by Juan Sánchez Cotán (1560-1627), which appeal to the ascetic and even monastic ideas attached to food. This lead us, via some observations by Albala and Gentilcore, to the relationship between fish and Lent.

Austerity and the deprivation of delicate food are inscribed in an ascetic way of life which may be imposed by disease or by a personal choice. Circumstances sometimes oblige us to respect such restrictions, which can also include a retreat from social life and from the usual activities if one can handle it (which is not usual). As a cultural practice, the *bais* implies duties which may also be socially and medically justified. The history of dietary regimens opens up a wide range of questions.

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