

## BIOETHICAL AND ANTHROPOLOGICAL ISSUES CONCERNING GALENIC REMINISCENCES IN ROMANIAN FOLK MEDICINE

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**Abstract:** Hippocrates considered the disease to be the result of an imbalance among the four humors. Consequently, the treatment involved the restoration of humoral balance, achieved through: diet, purgation, emesis, hydration and therapeutic bleeding. Both in excess and vitiated blood had to be removed to restore the balance. Phlebotomy, as a method of therapeutic bleeding, was widely practiced until the end of the nineteenth century being strongly promoted by Galen. Today phlebotomy has extremely limited indications in scientific medicine. However, it still survives, in some places, through popular traditions and alternative medicine. An example, in Romanian folk medicine, is the cutting under the tongue. The procedure was taken over from the old healers of the villages and adapted to the needs of modern society. The modern healers transformed the cutting under the tongue into a panacea for all ailments. The aim of this paper is to analyze the spread of this empirical therapeutical procedure and to try to find out its origins by insisting on the links with the therapeutic principles promoted by Hippocrates and Galen. Ethical aspects related to the practice of under tongue cutting in modern society will also be discussed.

**Keywords:** Hippocrates, Galen, humoral theory, phlebotomy, under tongue cutting.

### INTRODUCTION

Although we live in the age of evidence-based medicine, empirical therapies based on folk traditions passed down from generation to generation still persist in our society. The constant use of folk medical remedies instead of professional medical treatments cannot be justified on a rational basis and can have serious health consequences. Such attitudes can be explained through: fear or distrust of physicians, fear of certain diseases, but especially the lack of an adequate level of education and medical culture. From the point of view of the therapist who practices traditional medicine as a means of subsistence, he assumes a major risk because today's level of scientific knowledge can easily throw him onto the side of quackery.

The aim of this paper is to analyze the phlebotomy of the sublingual veins, known in Romania

as „under tongue cutting” (UTC). The origins, indications and effective spread of this therapeutic procedure were thoroughly analyzed. Beside the historical and anthropological aspects, we made some considerations regarding the ethical issues raised by practicing this therapeutic procedure nowadays. We searched for the answers of all these questions by analyzing a vast literature covering several scientific areas: medicine, history and folklore. Newspaper articles, weblogs, web forums, Facebook® pages, recorded TV shows and video clips on YouTube® were also very helpful to obtain a more accurate picture of the actual status of UTC.

Our first finding was that UTC still persists in Romanian folk medicine, in an up-to-date manner, adapted to current requirements and beliefs [1-6]. Apart from some thinly distributed anonymous healers in the rural areas [1, 2, 6], a new category of modern,

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urbanized healers rose up in the last decades. They took over elements of traditional folk medicine and practice their healing techniques under the shield of standardized alternative medicine systems like Unani, Ayurveda or Chinese traditional medicine [3-5]. Among these healing techniques is also the phlebotomy of the sublingual veins. In the online environment we can find a lot of information regarding the procedure like technique, indications and benefits. The internet offers us also the easiest way to access to therapists [3, 4]. Among the healers we easily identified three with an over average popularity. Two of them claim to have successfully treated thousands of patients across the country (3.5). Their treatments are promoted even through radio and television stations. None of the three therapists is a physician, only one of them being trained as a nurse [3]. Another one recommends himself as being a sort of herbalist and bioenergotherapist trained "by the Shaolin monks" and the third one seems to be a physiotherapist. From the nurse's statements we find out that he learned the procedure from his father who practiced it successfully throughout his life. He owns an authorized office where the rules of asepsis and antisepsis are strictly applied. Contrariwise, another renowned therapist had legal issues in 2002 due to the fact that he practiced without a licence and did not comply the basic rules of asepsis and antisepsis [5].

A numerous and heterogeneous population are seeking for medical relief from the healers. People with different social statuses and with all kinds of ailments, some of them incurable, address the therapists in the hope of miraculous cures. Relevant in this regard it is an article from "Evenimentul Zilei" published on November 12<sup>th</sup>, 2011 (author Lica Cristina) in which a healer describes his patients as follows: "workers, street sweepers, top managers and parliamentarians alike." It is shocking that among his patients there are many medical professionals: "a group of doctors and nurses from Bucharest." The strong belief in miracles, in the healing power of folk remedies based on ancestral traditions are the elements that still fuel alternative medical systems today. From the healers' statements, we find out that social class or education and culture are not essential elements in describing their patients' profile.

Most UTC practitioners emphasize the detoxifying effect of the procedure [1-4], an explanation used since antiquity for the therapeutic effects of phlebotomy. Some modern healers try to associate UTC with alternative medical systems practiced in Asia, such as: Unani medicine, Ayurveda and traditional Chinese

medicine [4]. Nineta Crainici considers that the therapeutic effect of sublingual phlebotomies practiced in Romanian folk medicine for liver diseases is due to the stimulation by incision of some bioenergetic centers, process alike with acupuncture. Incisions are usually made at the ear or under the tongue in case of jaundice or hepatitis [6]. According to therapists, the indications for UTC are much more numerous [1, 3, 4]: liver diseases (jaundice, hepatitis, cirrhosis), cancers of any kind, diabetes, blood infections, leukemia, high cholesterol, sexual dysfunction (impotence, frigidity), menstrual problems, hyper and hypotension, anemia (!), migraines, acne, psoriasis, varicose veins, spondylosis, kidney disease except those that require hemodialysis and many more. It is practically extremely difficult to find a contraindication to the procedure. UTC is also regularly recommended for healthy people, for disease prophylaxis and tonification of the body. In other words UTC is presented as a panacea for all health problems.

UTC can sometimes lead to fatal complications. Under the headline "Romanians killed with crone remedies" in the press it is reported the death by uncontrollable hemorrhage of an elderly patient subjected by relatives to a UTC for the healing of epilepsy (DC News, on February 1, 2014). In this context, some negative remarks of nowadays medical experts are presented as regarding a quack procedure and its practitioners.

In Romania, as in other parts of the world, phlebotomy has been practiced since ancient times equally by healers, crones, peasant healers, barbers, monks and licensed physicians (7.8). The origins of this therapeutic method are found in the humoral theory of the Hippocratic medicine [7]. Bleeding was a method of restoring humoral balance in terms of quantity (plethora) or quality (detoxifying the body). Depending on the pathology, it was made from well-established places: elbow, ankle, sublingual veins and those of the cephalic extremity.

A large number of written records of UTC are related to rabies. In the 1<sup>st</sup> century AD, the Latin poet Grattius Faliscus, contemporary with Ovid, comments in his poem "Cinegetica" on the ethiology and therapy of rabies [9]. According to Faliscus, the cause of rabies is a 'worm' which is confined to the base of the dog's tongue and which must be removed as soon as possible, when the animal is still young [9]. The same technique was applied in the 19<sup>th</sup> century in Austria-Hungary and in the Romanian Principalities for the prophylaxis and treatment of rabies in humans. Severeanu mentions UTC in the work "From my memories" (1929).

Referring to the peasant healers, Severeanu says: "They treated the rabies (before it arose) by cutting the veins under the tongue, saying that those were the Puppies." [10]. Referring to folk medicine in the second half of the 19<sup>th</sup> century, C. Bărbulescu mentions two cases of peasant healers who came to be investigated by the state medical and administrative authorities for practicing as healers without authorization [11]. In "Romanian Popular Medicine" by Mihai Neagu-Basarab published in the volume "Romanian Medicine in Evolution. Encyclopedic view", coordinated by M. Ifrim, A. Kozma and O. Buda, the author mentions an observation of Professor Pavelescu that in the village of Sibişel (Hunedoara County) lived "a hundred years ago 'a man who healed rabies' by making a dough mixed with the brain of an infected animal, lightly baked in the mouth of the oven, given for ingestion and cutting the patient under the tongue with a silver knife" [12]. With the consent of the Vienna authorities, a similar technique was used by the Croatian teacher Josep Lalic [13]. It consists of sectioning the veins at the base of the tongue followed by mouth washing with a solution containing plant extracts and rosemary brandy. Lalic's technique was neither new nor original. Karl Friedrich Bader had already published a book in 1792 in which he recommended the treatment of rabies by cutting the sublingual veins and squeezing the blood full with toxins using a wooden spatula [14]. Not only rabies but also other diseases were treated with UTC. Severeanu in his memoirs says that the peasants who treated rabies also "sought" for jaundice by making a small scratch with a silver feather, because the silver was "clean" [10]. George Bujorean also mentions "the very well-known custom in all Oltenia, which is the jaundice cut". Although the cut is usually done at the inferior part of the forehead, the variant of cutting under the tongue is also described [15]. UTC was also practiced in Bessarabia, being a technique frequently encountered in folk surgery [2].

UTC is indicated in both human and veterinary medicine, for the treatment of diseases of the tongue and oral cavity. In the Romanian literature, I have encountered the use of this procedure only in veterinary medicine, in connection with a disease of the tongue of cattle, called "frog". In the village of Răşinari from Mărginimea Sibiului, in case of a "frog" the tongue of the cattle was stung in order to drain the "bad blood" after which the tongue was rubbed with fine salt [16]. In another text, published in the magazine *Şezătoarea*, it is said that: "The cow gets rid of the frog by sticking his tongue out of the mouth and stabbing it with a large

needle or spear at the bottom, where there is a black vein. As soon as the blood is released, the cattle starts to eat." [17].

Hippocrates recommended for severe angina (Cynanche or Kynanche) the cutting of the sublingual veins after an initial phlebotomy at the arm [18]. In a list of places where phlebotomy can be performed, Galen also mentions the sublingual veins. He recommends the section of both sublingual veins in inflammations of the neck [19]. Before Galen, Soranus of Ephesus recommended UTC for angina. In the same situation, for refractory cases, Aretaeus of Cappadocia was also an advocate of the phlebotomy of sublingual veins [20]. In the works of Oribasius (4<sup>th</sup> century AD) we find the phlebotomy techniques described by Antyllus, a surgeon contemporary with Galen. He said that in the case of a sublingual phlebotomy both veins should be cut. If only one of the veins is sectioned, then it should be the right vein which is always bigger [21]. Paul of Aegina (625-690 AD) says about vene section that it is a widely used procedure since the time of Hippocrates [22]. He describes the sectioning of the sublingual veins by making the following statements: "we open the veins under the tongue transversely for angina (synanche), but without applying any bandage". Taken over and disseminated by Islamic doctors, the theories of the ancients were revitalized in the Middle Ages. In the twelfth century, therapeutic blood letting was extremely popular and was considered a panacea for all diseases, as evidenced by the *Regimen Sanitatus Salernitanum* [23]. Phlebotomy is presented in detail in Guy de Chauliac's *Chirurgia Magna*. The sublingual veins are among the veins that can be phlebotomized [24]. At the end of the 15<sup>th</sup> century, the first edition of *Fasciculus medicine* was published in Venice. Here it is mentioned the phlebotomy of the sublingual veins for treating diseases of the throat and oral cavity [25]. At the beginning of the 16<sup>th</sup> century, the well-known German surgeon Hans von Gerdorff described the indications for the sectioning of sublingual veins [26]. Nicholas Gyer is the author of a treatise on phlebotomies, published in London at the end of the 16<sup>th</sup> century. Regarding sublingual phlebotomy, it would be indicated in: angina, sore throat, apoplexy, cough, pain in the mouth, gums and teeth [27, p.246]. Ambroise Paré, in the 13<sup>th</sup> chapter of the treatise on thoracic pathology, mentions the venous branches of the tongue and those located on its lower part, which are usually sectioned in case of angina [28]. In 1584, barber Pietro Paolo Magni published the first edition of his work on therapeutic bleeding [29]. Chapter IX is the one intended to describe

the sublingual phlebotomy being also beautifully illustrated. Tiberio Malfi, a barber surgeon from Monte Sarchio, also describes the phlebotomy of the sublingual veins [30]. Another Italian, barber surgeon Cinzio d'Amato, described the procedure in 1632, saying that it is indicated in angina and diseases of the oral cavity (31). At the beginning of the 18<sup>th</sup> century, the German surgeon, J. P. Wahrendorff, said that in angina (Bräune or Agina) the sectioning of sublingual veins is still an indicated procedure [32]. Lorenz Heister also has a chapter on phlebotomy of sublingual veins, which he calls "Ranulae" [33]. UTC is useful in angina and other inflammations of the throat, especially if you have previously performed a bleeding in the neck, arm or ankle. Sprengel claims that the sublingual vein section (Froschadern) is an excellent means of treating severe cases of angina (Bräune) [34]. Sydenham, in the chapter entitled On the Quinsey, gives a detailed description of angina and recommends phlebotomy for its treatment, initially heavy bleeding from the arm and immediately afterwards from the veins under the tongue [35]. In 1838, Magistel states that the incision of the sublingual veins had numerous partisans, listing: Hippocrates, Arab doctors, Paul of Aegina *et al.* [21, p. 338]. However, he considers that the small veins are harder to detect and do not always ensure a sufficient bleeding flow. For this reason he recommends alternative techniques such as hirudotherapy or phlebotomy of large veins. He also states that the phlebotomy of the sublingual veins gave rise to fatal hemorrhages [21]. Since the middle of the 19<sup>th</sup> century, sublingual phlebotomy is no longer mentioned in the European medical literature, in parallel with the significant decrease of the therapeutic importance of phlebotomy in general.

Unani medicine, known also as Greco-Arab medicine, is widespread in the Islamic civilization of Asia (36). It has its origins in the humoral theory of the Hippocratic medicine. Phlebotomy, called Fasd, is one of the main therapeutic modalities of Unani medicine. Among the veins that can be incised are the sublingual veins, WaridTaht-al-Lisān or "As-Surdān" [36]. In Ayurveda, Raktamokshana or therapeutic bleeding, it is also extremely popular. Raktamokshana technique was described by Sushruta, one of the founders of Indian surgery [37]. The purpose of Raktamokshana is to purify the vitiated blood. Siravyadha or phlebotomy is considered to have a systemic purifying effect. Sublingual vein phlebotomy (Adho-Jihva) is indicated in diseases of the tongue and teeth [38 pages 204]. In traditional Chinese medicine, two acupuncture points are described under the tongue, that correspond to

the sublingual veins: Jinjin (left) and Yuye (right). Their scarification is a special acupuncture technique indicated in: mouth or lingual ulcers, lingual edema, diseases of the salivary glands, vomiting, diabetes and aphasia following strokes [39]. The therapeutic effect is explained by stimulating energy centers and not by detoxification.

UTC has a history of over two and a half millennia being practiced in both human and veterinary medicine as a prophylactic and therapeutic method. Therapeutic means of scientific and folk medicine alike, have been indicated in rabies, angina, diseases of the oral cavity, jaundice, liver and splenic diseases. Deeply rooted in folk traditions, UTC is still practiced in our country today in folk medicine for a wide range of diseases. It represents for modern healers a panacea for all ailments. UTC is still practiced today in the alternative medical systems like : Unani, Ayurveda and traditional Chinese medicine.

The persistence in Romania more than in other parts of Europe of the empirical medicine, can be explained by the peculiarities of the history of medicine in our country. For the Roman period there is an archaeological evidence suggesting that a qualified medicine was practiced in the province of Dacia. This is the seal of the Roman oculist Titus Attius Divixtus, found at Apulum [40]. After the Aurelian retreat, medicine in our country was left entirely in the hands of folk healers, old women and monks. Historical evidences show that only with the beginning of the XVI<sup>th</sup> century, the presence of physicians become permanent at the Voievod` Courts. Until now, doctors were only occasionally brought from Western Europe with great diplomatic and financial effort. On the other hand, Mateescu stated in 1933 that scientific medicine is only 150 years old in Romania [41]. For a millennium and a half, folk remedies have been deeply rooted in the collective tradition. Regarding their origins, Gion stated that most come from Rome, being similar to the remedies described by Pliny the Elder [42, p. 642].

Such kind of modern studies had started in many European countries emphasizing once more the important role of bioethics and of auxology and its contributions and involvement about taking the right decisions related to current contemporary issues such as globalization and migration, as well as to better understanding of the implications such phenomena can have on individuals and society [43].

In the 19<sup>th</sup> century, the discrepancy between scientific and folk medicine deepened. Folk medicine is generally associated with witchcraft and enchantment.



The licensed doctors fought it, considering it useless and even harmful. In the preface of his book, *Macrobiotic or the mastery of prolonging life*, after Cr. W. Hufeland, “translated and drafted for any cultured Romanian”, P. Vasici expresses himself clearly and quite harshly in this respect: the countless legion of quacks who have won the trust of a large part of the people, tells them that there is no other way to live long beside releasing blood when appropriate, scarification and taking remedies for detoxification. Also in this context, there is the delimitation of medical asylum structures from traditional monastic structures, specifying the institutional framework and promoting new technical acquisitions of medical sciences [44].

The efficiency of empirical therapies cannot be evaluated globally. It must be analyzed on a case-by-case basis. UTC obviously has no beneficial effect. If we talk about phlebotomy in general, it could have beneficial effects in certain situations. Besides the classic examples of hemochromatosis, polycythemia vera and porphyria cutanea tarda, phlebotomy would have a beneficial effect in chronic liver diseases by reducing iron deposits in the body, iron that is in excess hepatocytotoxic. By similarity, at first glance, UTC could be beneficial in some chronic liver diseases. A thoroughly risk-benefit analysis gives us no reason to support UTC as a useful medical procedure. The procedure is rather dangerous, all the more risky as it is performed in more inappropriate conditions. From this point of view, today, after two and a half millennia of history, the evolution of science has definitively removed UTC from scientific medicine and its practitioners were thrown into the area of quackery.

### Conflict of interest

The authors declare that they have no conflict of interest.

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