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Recommendations for the Use of Phlebotomy
in the Light of Johann Christian Ackermann's Treatise
Entitled *Abhandlung von den Krankheiten der Künstler
und Handwerker* (1780–1783)

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SUMMARY

The aim of this article is to examine Johann Christian Ackermann's two-volume treatise on occupational diseases in the 18th century in search for the information on the use of phlebotomy. The analysis carried out showed that Ackermann recommended bloodletting relatively rarely. When he did so, he warned that due caution should be exercised. Ackermann's views are in line with those of other qualified health providers. Despite the doubts raised in academic circles about the use of phlebotomy, it was willingly performed by clandestine healers, barbers, barber surgeons and even some surgeons, who often fulfilled the expectations of their patients and also saw their business as a source of extra income.

KEYWORDS: history of medicine, history of public health, history of crafts, phlebotomy, the 18th century history.

STRESZCZENIE

Zalecenia dotyczące stosowania zabiegu flebotomii
w świetle traktatu Johanna Christiana Ackermanna pt. *Abhandlung
von den Krankheiten der Künstler und Handwerker* (1780–1783)

Celem artykułu jest przebadanie dwutomowego traktatu Johanna Christiana Ackermanna, który poświęcony jest chorobom zawodowym w XVIII w. pod kątem informacji dotyczących stosowania zabiegu flebotomii. Dokonana analiza wykazała, że Ackermann stosunkowo rzadko zalecał upusty krwi. Jeżeli już to czynił, przestrzegał zarazem, aby przy ich przeprowadzaniu zachować należytą ostrożność. Poglądy Ackermanna można uznać za zbieżne z poglądami innych wykwalifikowanych oferentów usług medycznych. Pomimo wątpliwości podnoszonych

w środowiskach akademickich względem stosowania flebotomii, zabieg ten chętnie wykonywali pokątni uzdrowiciele, balwierze, cyrulicy, a nawet niektórzy chirurdzy, którzy niejednokrotnie wychodzili w ten sposób naprzeciw oczekiwaniom pacjentów, upatrując zarazem w swojej działalności źródła dodatkowego przychodu.

SŁOWA KLUCZOWE: historia medycyny, historia zdrowia publicznego, historia rzemiosła, flebotomia, historia XVIII wieku.

The first edition of Bernardino Ramazzini's medical treatise, entitled "De Morbis Artificum Diatriba" (*Dissertation on Occupational Diseases*), was published in 1700 in Modena¹. It was a pioneering work which attempted to provide a comprehensive analysis of occupational diseases. The publication, more than 330-page-long, quickly gained popularity among scholars throughout Europe². This is evidenced by its subsequent editions (a second edition of the book was published as early as 1713)³,

¹ On Bernardino Ramazzini and his work see, e.g.: J.S. Felton, *The heritage of Bernardino Ramazzini*, "History of Occupational Medicine" 1997, vol. 47, no. 3, pp. 167–169; E. Galimberti, F. Manzini, M.A. Riva, *Bernardino Ramazzini (1633–1714): an Often Forgotten Pioneer in Maritime Health*, "International Maritime Health" 2014, vol. 65, no. 1, p. 41; G. Franco, F. Franco, *De Morbis Artificum Diatriba [Diseases of Workers]*, "American Journal of Public Health" 2001, vol. 91, no. 9, pp. 1380–1382; P.M. Dunn, *Dr Ramazzini (1633–1714) and the Occupational Diseases of Midwives and Wet Nurses*, "Archives of Disease in Childhood" 1993, vol. 68, pp. 337–339; G. Franco, *Bernardino Ramazzini (1633–1714) y su lección integral en prevención y promoción de la salud de los trabajadores*, "Revista Cubana de Salud y Trabajo" 2021, vol. 22, no. 2, pp. 65–69; J.L. Pagel, *Über Bernardino Ramazzini und seine Bedeutung in der Geschichte der Gewerbehygiene*, "Deutsche Medizinische Wochenschrift" 1891, Nr. 17, pp. 224–226; F. Kölsch, *Bernardino Ramazzini der Vater der Gewerbehygiene (1633–1714). Sein Leben und seine Werke*, F. Enke, Stuttgart 1912; J. Ostrowski, *Zdrowie publiczne w kontekście historycznym*, in: *Współczesne wyzwania zdrowia publicznego. Wybrane zagadnienia*, red. J. Pinkas, Warsaw 2021, pp. 6–7; J. Schwann, *Choroby zawodowe skóry w ujęciu B. Ramazziniego i jego poprzedników w Polsce*, "Archiwum Historii Medycyny" 1958, nr 1–2, pp. 121–131; P. Pazzini, *B. Ramazzini*, "Scientia Medica Italica" 1956, no. 3, pp. 373–387; A. Krasuski, *Bernardinio Ramazzini jako twórca nauki o chorobach zawodowych i jego wpływ na medycynę polską na przełomie XVIII i XIX wieku*, "Lekarz Polski" R. 10, 1934, nr 7, pp. 3–17.

² In the English market this work was available as early as 1705. See: C. Spence, *Accidents and Violent Death in Early Modern London 1650–1750*, Woodbridge 2016, p. 191. There was also very soon a lively debate on the theses presented by the Italian scholar whose adversary was – described as 'medico practico' – Andreas Montaglio. See A. Haller, *Bibliotheca medicinae practicae*, vol. 3, Basilea 1776, pp. 483–485.

³ B. Ramazzini, *De morbis artificum diatriba. Mutinae olim edita; nunc accedit Supplementum ejusdem argumenti, ac Dissertatio de Sacrarum Virginum Valetudine tuenda*, Venetiis 1713.

as well as translations into vernacular languages⁴. A significantly revised French translation of this treatise, with an extensive introduction by Antoine-François de Fourcroy, was published in 1777⁵. Ramazzini's work was also a starting point for the following generations of researchers working in the field of public health and occupational diseases. Among other things, it was thanks to the Italian scientist's treatise that the English surgeon Percivall Pott discovered a connection between the occupation of chimney sweeping and the incidence of scrotal cancer⁶. The work also contributed to the debate on the removal of cemeteries from European cities in the late 18th and early 19th centuries. Indeed, Ramazzini pointed out that cemeteries contributed to the formation of "putrid fumes", which in turn led to the spread of most contagious diseases⁷.

At the turn of the eighteenth and nineteenth centuries, ideas of public health became particularly important to German scholars, among whom Johann Peter Frank and Christoph Wilhelm Hufeland played a special role⁸. German was the first language into which the work of the Italian scholar was translated⁹. Between 1780 and 1783, however, a thoroughly revised and expanded edition of this translation was published in Stendal by Johann Christian Gottlieb Ackermann¹⁰. It took the author nine years to prepare it¹¹. The ideas of Bernardino Ramazzini were brought to Poland through

⁴ A. Krasuski, *Bernardinio Ramazzini jako twórca nauki o chorobach zawodowych*, p. 9.

⁵ *Ibidem*, pp. 9–10; A. Farge, *Work-Related Diseases of Artisans in Eighteenth-Century France*, in: *Medicine and Society in France. Selections from the Annales Economies, Sociétés, Civilisations*, vol. 6, eds R. Forster, O. Ranum, transl. by E. Forster, P.M. Ranum, Baltimore and London 1980, p. 90. Cf. A. Farge, *Choroby zawodowe rzemieślników*, tłum. T. Falkowski, "Klio: czasopismo poświęcone dziejom Polski i powszechnym" 2010, t. 15, 2010, nr 2, pp. 95–114.

⁶ S. Mukherjee, *Cesarz Wszech Chorób. Biografia raka*, tłum. J. Dzierzgowski, A. Pokojka, Wołowiec 2013, p. 290.

⁷ P. Ariés, *Człowiek i śmierć*, transl. E. Bąkowska, Warszawa 2011, p. 480. The abolition of burials in churches was strongly opposed by the clergy as it would reduce their income. See Geheimes Staatsarchiv Preußischer Kulturbesitz (hereinafter: GStPK), II.HA GD, Abt. 9, Polizeiverwaltung Tit. 82 Sekt. 1 No. 3, k. 5–6.

⁸ B. Płonka-Syroka, *Johann Peter Frank i Christoph Wilhelm Hufeland jako pionierzy profilaktyki medycznej z XVIII i XIX wieku*, "Kwartalnik Historii Nauki i Techniki" 2018, t. 63, nr 4, pp. 47–70.

⁹ A. Farge, *Work-Related Diseases*, p. 90.

¹⁰ *Bernhard Ramazzini's Abhandlung von den Krankheiten der Künstler und Handwerker neu bearbeitet und vermehret* von Dr. Johann Christian Gottlieb Ackermann, Bd. 1, Stendal 1780.

¹¹ "Die gegenärtige Bearbeitung des Werks des Ramazzini ist eine Frucht einer Arbeit von neun Jahren, seit welcher Zeit ich meine eigenen Beobachtungen zu diesem Endzweck au-

Ackermann's edition. Leopold Lafontaine translated extensive extracts from the work of the German scientist. He published them regularly in a monthly medical journal entitled "Dziennik Zdrowia dla Wszystkich Stanów" (*Journal of Health for All States*) (1801–1802). Due to the short life of the journal, Lafontaine's discussion of Ackermann's edition was abbreviated and simplified¹². The aim of this article is to analyse Johann Ackermann's edition of Bernardino Ramazzini's work in order to obtain information on the use of the procedure of phlebotomy. It is an attempt to answer the question of whether the procedure of bloodletting, popular in the early modern period, was still widely used and recommended in the Prussian state at the end of the 18th century, and consequently in those areas of Poland which, as a result of successive partitions, came under Prussian rule. Before analysing Ackermann's paper, it is worth giving a brief outline of his biography.

Johann Christian Gottlieb Ackermann was born on 17 February 1756 in Upper Saxony, in the village of Zeulenroda-Triebes, then the centre of the hosiery industry. His father was the physician Johann Samuel Ackermann (1705–1762) and his mother Eva Rosine Oberreuther (1722–1776), daughter of the tanner Paul Steinmüller. At the age of 15, Johann Christian Gottlieb Ackermann entered the University of Jena and then studied in Göttingen. He became a member of the Leopoldina in 1780 and was appointed professor of chemistry in Altdorf in 1786. In 1794 he accepted a position as chairman of the department of applied medicine and of the local hospital for the poor. He died of tuberculosis in 1801, aged only 45. Ackermann's most important works include "Institutiones historiae medicinae", Nürnberg 1792 and "Bemerkungen über die Kenntniß und Kur einiger Krankheiten, 7 Hefte, Altdorf 1794–1800"¹³. In addition, he is the author of a biography of the German philosopher, inventor and alchemist, Johann Konrad Dippel¹⁴. Ackermann's prolific output was complemented by his editorial work.

fzuschreiben, und auch die Beobachtungen anderer Aerzte zu sammeln angefangen habe". See Bernhard Ramazzini's *Abhandlung von den Krankheiten der Künstler und Handwerker neu bearbeitet und vermehret* von Dr. Johann Christian Gottlieb Ackermann, Bd. 2, Stendal 1783, [Vorrede].

¹² In total, Lafontaine's compilation corresponds to about one third of Ackermann's edition. See more: S. Schwann, *O chorobach zawodowych w polskim piśmiennictwie medycznym w XVIII i na początku XIX wieku*, "Kwartalnik Historii Nauki i Techniki" 1965, t. 10, nr 1–2, pp. 80–87.

¹³ A. Hirsch, *Johann Christian Gottlieb Ackermann*, in: *Allgemeine Deutsche Biographie*, Bd. 1 (Von der Aa-Baldamus), Verlag von Duncker & Humblot, Leipzig 1875, p. 37.

¹⁴ J.Ch.G. Ackermann, *Das Leben Johann Conrad Dippels*, Leipzig 1781.

Among other things, he edited a three-volume collection of the medical works of Georg Gottlob Richter, a professor at the University of Göttingen, and the two-volume edition of Bernardino Ramazzini's work mentioned above¹⁵.

As far as the latter work is concerned, both volumes are relatively easy to access. This is because they can be found on the websites of digital libraries. For the purposes of this text, the copies held in the Elbląg Library (volume one)¹⁶ and the Staats- und Stadtbibliothek Augsburg (volume two)¹⁷ were used. The copy from the Elbląg Library does not contain any marginalia that could help to identify the owner of the book. The title page shows only the initials "V. G." and the stamp of the Elbląg Grammar School Library¹⁸ (fig. 1). The first part of the work consists of 311 pages, which are preceded by a twenty-page unpaginated introduction and an unpaginated four-page table of contents.

The holder of the copy from the Staats- und Stadtbibliothek in Augsburg was the Augsburg physician Joseph Ahorner von Ahornrain (1764–1839)¹⁹. The inside cover bears his ex-libris and the signature "Joseph Ahorner d'Ahornrain, medci. Doctor". The second part of Ackermann's edition comprises 326 pages preceded by a twelve-page unpaginated introduction. However, the work concludes with an unpaginated twenty-two page index. Unfortunately, it is abbreviated and therefore inaccurate. In the case of phlebotomy, which is the subject of this article, there is only one reference in the first part of Ackermann's treatise. Meanwhile, my analysis of both volumes of the work has shown that the German scholar mentions the procedure of bloodletting much more frequently.

¹⁵ See: footnote 10–11.

¹⁶ A copy is available on the Elbląg Digital Library website: <https://dlibra.bibliotekaelblaska.pl/dlibra/publication/69681/edition/64628/content?ref=struct> (accessed: 4.07.2024).

¹⁷ A copy is available on the Münchener DigitalisierungsZentrum website: https://www.digitalesammlungen.de/en/view/bsb11269498?page=,1&fbclid=IwZXh0bgNhZW0CM-TAAAR0iUW-1TU2MEAXqF_YDCKbWcq44RZp39cXXzfAh4I-avE4na34mgdQSQ_aem_DB52kAYWrOgzMkxsGiH5sA (accessed: 4.07.2024).

¹⁸ ELB. GYM. BIBL.

¹⁹ He graduated in theology in Bressanone and Innsbruck and medicine in Vienna. From 1793 he was the Catholic town physician in Augsburg and dean of the local *Collegium Medicum*. He was the author of the medical ordinance for Augsburg of 1801. He also founded a widow's fund in that city in 1797 and an orphan's fund in 1828. Among other things, he was a physician to Archbishop Clement Wenzeslaus see W. Liebhart, G. Grünsteudel, *Ahorner*, in: *Stadtlexikon Augsburg* https://www.wissner.com/stadtlexikon-augsburg/artikel/stadtlexikon/ahorner/3036?fbclid=IwZXh0bgNhZW0CM-TAAAR02IQ--gXzaygAwxBUE5iaCvrwz8mwJpxnLXhFeSKC7IEkk4niX4sloxE_aem_eLLua2fBePwh7MjiT7Tu5g (accessed: 4.07.2024).

The two parts of the edition have a total of 637 pages. The original, depending on the edition, has about 330 pages. This clearly shows how much Ackermann interfered with Ramazzini's original text.



Figure 1. Title page of the first volume of the treatise by J.Ch.G. Ackermann

Ackermann's edition consists of eight sections (*Abschnitt*), each subdivided into four to nine chapters, with supplements in volume two concerning, among other things, the diseases of glue-makers and hat-makers. Section one included the so-called "dirty professions". Ackermann included the following in this group: tanners, oil-makers, cheese-makers, soap-makers, candle-makers, launderers and clothes cleaners, butchers, gravediggers and body-watchers, latrine cleaners, as well as midwives and wet nurses. The second section of the work, on the other hand, included the so-called "dusting professions": bakers, millers, potato and cereal starch makers, wigmakers, stonemasons, masons, grain workers, snuff makers and producers of silk, flax, wool and hemp. Another, third section, included occupations "requiring walking, sitting and standing". These were professions in which the worker's body was exposed to an unnatural position for long periods of time. This group contains chapters dedicated to such jobs as: weavers, hosiers, cloth cutters, tailors and shoemakers, messengers, horsemen, porters, fencers and, interestingly, Jews (in the context of tradesmen). The fourth section is devoted to water-related professions, such as bathhouse workers, fishermen and skippers, saline workers and wine and brewers. The last – fifth – section of the first part of the treatise includes all those occupations that could not be included in the four groups above: workers in "factories", people engaged in artistic crafts, orators, singers and musicians, and farmers²⁰.

The second volume is of a slightly different nature and, in principle, develops in a significant way the themes that Bernardino Ramazzini's work only hinted at. It begins with a sixth section on the diseases of miners and smelters. The diseases suffered by these groups of workers, and the remedies used to treat them, are dealt with in four chapters. The seventh section, which is the most extensive in the second part of Ackermann's edition, consists of eight chapters and is devoted to the diseases of those artists and craftsmen who came into contact with minerals during their work. These included silk weavers, goldsmiths, ointment makers using mercury and other minerals, those who came into contact with sulphur in their work, those who burnt gypsum and lime, potters, painters and dyers and apothecaries. The final eighth section, divided into five chapters, deals with those artists and craftsmen who worked with metals and minerals and who were often exposed to fire as a result. The diseases of mirror makers, craftsmen working in glassworks, locksmiths, as well as blacksmiths and casters of various metals such as copper, tin, lead or iron are described here²¹.

²⁰ Bernhard Ramazzini's *Abhandlung von den Krankheiten*, Bd. 1, [Vorrede].

²¹ Bernhard Ramazzini's *Abhandlung von den Krankheiten*, Bd. 2, [Vorrede].

Ackermann's edition of Ramazzini's work differs significantly from the original. The German physician, while fully acknowledging the merits of the Italian scientist in the field of occupational diseases, at the same time pointed out the large number of quotations from ancient works and digressions used by Ramazzini, which were meant to make the treatise much longer. In addition, Ackermann drew attention to some elements of superstition and folk belief in Ramazzini's work, which he ultimately excluded from his edition. These include, in Ackermann's view, the delusional harm caused by menstrual blood²². Within the eighty years between the publication of the first edition of "De Morbis Artificum Diatriba" and Ackermann's edition, there were some significant changes in the crafts, which meant that Ackermann had to leave out certain chapters, replacing them with updated paragraphs devoted to new crafts or crafts that had gained popularity at that time, such as wigmakers, cloth shearers, weavers and hosiers. Ackermann also decided to make changes to the structure of the work, it had already been undertaken by Antoine-François de Fourcroy, the French translator and publisher of Ramazzini's work. What is more, he refrained from describing the soldiers altogether, explaining that the "art of war" had undergone such significant changes in the course of eighty years that the book's limitations did not allow him to present them in full. Moreover, the German scholar indicated that he was not able to go beyond the findings in the literature to date. This most likely indicates that he had not had the opportunity to gain insight into this professional group, and thus familiarise himself with the intricacies of this organisation and its functioning²³.

The specialist literature on the subject was Ackermann's source of information – in particular the works of Giovanni Battista Morgagni (*De Sedibus et causis morborum per anatomen indagatis*), Anton de Haen (*Ratio Medendi in Nosocomio Practico...*), Gabriele Falloppio (*De metallis seu fossilibus*), or Martin Lister (*Octo exercitationes medicinales...*). He also relied on his own observation and practice. In his introduction to the edition of Ramazzini's work, Ackermann indicated that he had been around craftsmen from an early age. He grew up with many of them. Even as a child, he went to workhouses observing the people working there. During these visits, he would talk to the workers, who very often complained

²² A. Krasuski *Bernardinio Ramazzini jako twórca nauki o chorobach zawodowych*, pp. 10–13; *Bernhard Ramazzini's Abhandlung von den Krankheiten*, Bd. 1, [Vorrede].

²³ *Bernhard Ramazzini's Abhandlung von den Krankheiten*, Bd. 1, [Vorrede]; cf. S. Schwann, *O chorobach zawodowych w polskim piśmiennictwie medycznym*, p. 80.

to him about the difficulties arising from the craft in question²⁴. The fact that Ackermann's grandfather, Paul Steinmüller, was the owner of a tannery, certainly contributed to such observations and conversations.

Much of Ackermann's work is his own original work, for which Ramazzini's treatise provided only a theoretical foundation. It can be clearly seen in the second part of the edition. In sections six and eight, the vast majority of the findings came from Ackermann's individual observation and the recent literature. The German scientist made the fewest changes in section seven, particularly in those chapters discussing people working with mercurial ointments. The author also made a small number of additions to the original in the chapter on workers exposed to pathogenic sulphur and in the chapter on glass and mirror manufacturers²⁵.

The structure of each section looks quite similar. A general introduction to the specifics of a group of professions identified by the author on the basis of similar work-related ailments, is followed by a characterisation of the particular professions. After listing the harmful factors associated with the profession, Ackermann describes the resulting diseases. Finally, he presents methods of prevention, pointing out that sometimes the only way to avoid death or serious damage to health is to stop doing a dangerous job altogether. He recommends various measures aimed at mitigating the effects of hazardous working environments. In addition to diets and medications for internal or external use, there are also occasional references to the blood-letting.

Phlebotomy was one of the most popular treatments used in the early modern era²⁶. Old Polish medical handbooks were full of recommendations for performing this procedure²⁷. Information on phlebotomy was also published in

²⁴ Bernhard Ramazzini's *Abhandlung von den Krankheiten*, Bd. 1, [Vorrede].

²⁵ "Die wenigsten Zusätze hat das Kapitel von den Krankheiten derer, die sich mit dem Einreiben der Quecksilbersalben beschäftigen, welches bey der weitläufigen Behandlung der Krankheiten anderer Quecksilberarbeiter, mit denen sie ihre Krankheiten gemein haben, auch ganz hätte wegfallen können, dasjenige, in welchem die Krankheiten der Schwefelarbeiter behandelt werden, und das Kapitel, in welchem die Krankheiten der Glas- und Spiegelmacher behandelt werden, erhalten" see: Bernhard Ramazzini's *Abhandlung von den Krankheiten*, Bd. 2, [Vorrede].

²⁶ See: e.g., J. Waurig, *Der Thüringer Wundarzt Ludwig Corn und seine Schrift über Aderlaß und Zahnextraktion*, Würzburg 2005; P. Pfütsch, *Aderlass, Purgation und Maulbeersaft. Gesundheit und Krankheit bei Ernst Adalbert von Harrach (1598–1667)*, Innsbruck 2013.

²⁷ J. Węglorz, *Zdrowie, choroba i lecnictwo w społeczeństwie Rzeczypospolitej XVI–XVIII wieku*, Wrocław 2015 (further literature there).

the calendars of the time²⁸ and in the manuscript and printed press²⁹. Various types of egodocuments from the period, such as diaries and memoirs, also demonstrate the popularity of bloodletting³⁰.

However, in Ackermann's treatise bloodletting is not frequently mentioned. The German scholar recommends using the treatment only as a last resort³¹. At the same time, he draws attention to the serious dangers of the misuse of bloodletting, especially in the case of people who cleaned clothes, as they allegedly had less blood than an "average person" and it was said to be "impure" and thick³². The same applies to gravediggers, whose blood, due to their profession, was said to be corpse-black, just like their faces. For this reason, a German scholar advises bloodletting only in cases of emergency³³. When it comes to latrine cleaners, he recommends that phlebotomy should be performed as a last resort when their eyes are very bloodshot and sore, posing a risk of severe inflammation³⁴. He recommends the same precautions for saline workers who are prone to fainting during the procedure and for whom bloodletting could even make the condition worse³⁵. Ackermann further points out that some doctors also recommend bloodletting for wet nurses. However, he warns against this, advising extreme caution so as not to excessively weaken the nursing woman's body and thus

²⁸ See: e.g. B. Rok, *Kalendarze polskie czasów saskich*, Wrocław 1985.

²⁹ See: e.g. A. Kucharski, *Epidemie i choroby w doniesieniach polskiej prasy rękopiśmiennej z drugiej połowy XVIII wieku*, "Wiek Oświecenia" 2021, nr 37, pp. 11–41.

³⁰ See: e.g. S. Trzebiński, *Medycyna w Polsce w świetle niektórych pamiątek XVII wieku*, "Archiwum Historji i Filozofji Medycyny" 1924, t. 1, z. 1, pp. 34–52; J. Węglorz, *Teoretyczny rozdział kompetencji pomiędzy dawnymi medykami i chirurgami a codzienna praktyka lecznicza opisana w egodokumentach staropolskich*, "Kwartalnik Historii Nauki i Techniki" 2021, t. 66, nr. 2, pp. 87–102.

³¹ Fully drawing from Ackermann's edition, Lafontaine omitted this treatment altogether, which may indicate that he did not value blood letting very much; S. Schwann, *O chorobach zawodowych w polskim piśmiennictwie medycznym*, p. 83.

³² "Mit dem Aderlassen muß man bey Handwerkern dieser Art sehr behutsam seyn, und daselbe nur, wenn es höchstnöthig ist, und bey gefährlichen Krankheiten vornehmen lassen"; see: *Bernhard Ramazzini's Abhandlung von den Krankheiten*, Bd. 1, p. 46.

³³ "Wenn ich Todtengräber zu besorgen habe; so lasse ich ihnen, ausser in dringenden Fällen, kein Blut weg, denn ihr Blut ist todtenfarbig, wie ihr Angesicht"; see: *ibidem*, p. 73.

³⁴ "Sind aber die Augen sehr roth und sehr schmerzhaft, und läßt sich eine stärkere Entzündung befürchten, so muß man den Kranken zur Ader lassen"; see *ibidem*, p. 80.

³⁵ "Indeß müssen die an solchen Örtern angestellten Ärzte bei der Heilung solcher Arbeiter sehr behutsam sein, und besonders mit der Anordnung der Aderlässe sehr vorsichtig zu Werke gehen. Denn es können auf das Aderlassen bei Personen dieser Art sehr leicht Ohnmachen folgen, und die Krankheit verschlimmert werden"; see *ibidem*, p. 260.

aggravate their ailments³⁶. Wet nurses who served in the houses of influential and wealthy people were said to suffer frequently from attacks of hysteria. He therefore advises the use of phlebotomy as the best way to cleanse blood vessels that have been flooded with humoral fluids³⁷. Bloodletting was also recommended for messengers and swordsmen, the latter were supposedly protected this way from sudden and violent death³⁸. In addition, the procedure is said to offer hope to those suffering from lung diseases caused by working in dust and dirt³⁹. However, bloodletting was rarely practiced on Jews. Firstly, their blood production was supposedly slower than other people's, so they felt very weak after the procedure; and secondly, there was a deep-rooted superstition in the Jewish community that bloodletting was harmful to the eyes⁴⁰.

In the chapter on the owners and attendants of the baths, Ackermann directly criticised this profession. He pointed out that, contrary to the recommendations of

³⁶ "Zur Ader wurde ihr nicht gelassen. Ein warmes Bett und erschlaffende Salben, die man auf den leidenden Theil gelegt hatte, hatten bey ihr die Zeitigung der Säfte bewirkt. Andere Aerzte würden dieser Person wol eine Ader haben öffnen lassen (...) Da nun viele Ammen bei den Aerzten Hülfe gegen ihre Krankheiten begehren, und wenigstens bei uns nicht so gar viele Ammen gefunden werden, die in Häusern vornehmer und reicher Personen Kinder säugen, und bei denen man wegen ihrer gutnährenden Speisen einen Ueberfluß des Blutes vermuthen könnte; so muß man bei der Aderlasse in diesen Fällen die größte Vorsicht brauchen, damit durch dieselbe der Körper nicht noch mehr geschwächt, und die Krankheit vergrößert werde"; see: *ibidem*, pp. 10–102.

³⁷ "Eine Zweite, den Ammen besonders eigene Krankheit sind die hysterischen Anfälle. Diese muß man, wenn sie von einem Ueberfluß der Säfte entstehen, welcher oft bei den Ammen vornehmer und reicher Personen statt findet, durch Ausleerungen, besonders aber durch eine Aderlasse, welche die angefüllten Gefäße am besten entlediget, zu heben suchen"; see: *ibidem*, p. 114.

³⁸ "Eine, und zwar ziemlich reichliche Aderlasse war eines der vornehmsten Mittel, theils, weil dem Körper dadurch ein Theil des überflüssigen, gröbern Blutes entzogen wurde, theils auch, weil man durch dasselbe den freien Umlauf des Blutes wieder herstellen wollte, der in den Lungengefäßen und den größern Pulsadern des Körpers unterbrochen war, und mächtig genug ist, zuweilen einen plötzlichen Tod zu verursachen"; see: *ibidem*, pp. 230–231.

³⁹ "Der Gebrauch äußerlicher, stark ableitender Mittel, des Salpeters, der zertheilenden und erweichenden Dämpfe, die in die Lungen geathmet werden, und am meisten einer starken Aderlasse, wird der Hoffnung des Arztes am gewisesten entsprechen"; see: *Bernhard Ramazzini's Abhandlung von den Krankheiten*, Bd. 2, p. 283.

⁴⁰ "Das Aderlassen aber hab ich bei ihnen bei weiten nicht so nützlich befunden, als den Gebrauch der Purgiermittel, denn ihre Kräfte verschwinden wegen des von den Lebensgeistern sparsam belebten Blutes sehr leicht. Auch setzt das bei ihnen eingewurzelte Vorurtheil, daß die Aderlasse den Augen schade, dem Gebrauch dieses Mittels oft Hindernisse entzogen"; see: *Bernhard Ramazzini's Abhandlung von den Krankheiten*, Bd. 1, pp. 237–238.

doctors and driven solely by the desire for profit, they applied bloodletting to every sick person, often causing their health to deteriorate. In the chapter on peasants, however, he warned (on the basis of his own experience) against excessive bloodletting and the use of laxatives⁴¹. He justified this on the grounds that it further emaciated the peasants' organisms, already exhausted by excessive work⁴².

The use of phlebotomy was a last resort. For those exposed to the harmful effects of mercury, Ackermann, citing the findings of the previously mentioned Martin Lister and Gabriele Falloppio, as well as the work of Peterus Poterius entitled "The Pharmacopea Spagyrica", recommends a number of remedies such as gold flakes, guaiac and sulphur mixed with wine. When these remedies proved insufficient and the patient's humours became too agitated, the German scientist indicates the need for stronger remedies, which included antimony. He also writes that bloodletting could be useful in such a case, adding that the procedure should be carried out very carefully, as the humours in the human body need an agent that stimulates them rather than one that weakens them⁴³.

A critical analysis of Ackermann's medical treatise, based on Bernardino Ramazzini's work entitled "De Morbis Artificum Diatriba", reveals a notable skepticism about phlebotomy, a practice that had been documented at least since ancient times. Nevertheless, his perspective aligns with the prevailing approach in German medicine at the time, which advocated a more cautious use of this particular treatment. It is clearly demonstrated in an extract from a *circulaire* issued by the *Ober-Collegium Medicum*, which was translated into Polish and published in 1774. It is stated here:

⁴¹ "Ich wiederrathe daher, aus eigener Erfahrung eines andern belehrt, nochmals den übermässigen Gebrauch der Aderlässe und der Purgiermittel bey den Krankheiten des Landmanns ernstlich"; see *Bernhard Ramazzini's Abhandlung von den Krankheiten*, Bd. 1, pp. 310–311.

⁴² Ich sehe oft, daß die armen Bauren, die in die allgemeinen Krankenhäuser gebracht werden, von den jungen Aerzten durch den Gebrauch starker Purgiermittel, und das wiederholte Aderlassen gänzlich entkräftet werden, da doch ihre von der Arbeit geschwächten Kräfte den Gebrauch dieser Mittel nicht zu lassen. Daher kommt es auch, daß viele Kranken lieber während ihrer Krankheit auf dem Land, sich selbst überlassen bleiben, als in die Krankenhäuser der Städte gehen wollen, wo viele, nach abgezapften vielem Blut, und nach heftigen Ausleerungen durch den Stuhl, ihr Leben endigen"; see: *ibidem*, pp. 308–309.

⁴³ "Spiesglasbereitungen sind zu diesem Endzweck sehr nützlich, der Gebrauch der Aderlässe aber muß sorgfältig verhütet werden, weil die Maße der Säfte, und besonders die Lebensgeister eher eines Mittels, welches sie in grössere Würksamkeit setzt, als eines solchen bedürfen, welches ihrer Würksamkeit noch stärker entgegen ist"; see: *Bernhard Ramazzini's Abhandlung von den Krankheiten*, Bd. 2, p. 150.

One might nevertheless question whether the peasant himself, who desired this outcome and conceived this concept, or the barber who performs the procedure, who is motivated by profit and reluctant to relinquish any portion of it, is more culpable for the resulting misery. It can be argued that the practice of bloodletting causes less harm than the frequent use of this remedy. In the former case, when the blood is not let, there is still the possibility that natural processes and the patient's own behaviour may result in an improvement. In the latter case, the patient is left with a sense of injustice and a troubled conscience, and may perceive the practitioner's actions as either unscrupulous or below the standards⁴⁴.

The quoted fragment presents a veiled criticism of backstreet doctors who, motivated by the greed rather than the well-being of the patient, excessively prescribe bloodletting. This criticism is also evident in Ackermann's edition, which rebukes the exclusively profit-driven bath owners. However, the services of barbers found a fertile ground, as the patients themselves demanded bloodletting, convinced of its effectiveness⁴⁵. This created a kind of dichotomy. On the one hand, by the end of the 18th century, university-educated doctors avoided bloodletting. For example, in the medical inspection reports from Elbląg from the 1770s until the turn of the century, we find no information about the application of bloodletting by the local district physicians and surgeons⁴⁶. On the other hand, in the patient ledger (*Krancken-Buch*) kept by Matthias Heinrich Klinsmann, a surgeon from Gdańsk at the end of the 18th century, the entry 'Venesection' would regularly appear next to the names of individual patients and the fees for the procedure⁴⁷. Also, on the pages of a hand-written newspaper published in this town just before its incorporation into the Prussian state in 1793, there can be found announcements concerning the practice of bloodletting⁴⁸.

The analysis shows that in the second half of the 18th century, the university educated medical community increasingly distanced itself from the use of bloodletting. It was recommended only as a last resort, when other remedies and therapies failed. There were also warnings that bloodletting should always be performed under the supervision of a qualified physician, who would ensure that the treatment did not worsen the patient's condition.

⁴⁴ GStPK, II HA GD, Abt. 9, Polizeiverwaltung Tit. 82 Sekt. 1 Nr. 4, k. 7–8.

⁴⁵ B. Duden, *Historia ciała. Lekarz i jego pacjentki w osiemnastowiecznym Eisenach*, tłum. J. Górny, Warsaw 2014, p. 40.

⁴⁶ Archiwum Państwowe w Gdańsku, ref. 369.2/2390, ref. 369.2/2391, ref. 369.2/2392, ref. 369.2/2393, ref. 369.2/2394, ref. 369.2/2395, ref. 369.2/2396, ref. 369.2/2397.

⁴⁷ *Ibidem*, ref. 300, R/J, 19, *passim*.

⁴⁸ See, for example, *ibidem*, ref. 300, R/LL, q. 145, k. 148.

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