

On the early uses of the word 'gout': novel evidence and a critical assessment of the published literature

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SUMMARY

Recognized since antiquity, gout is still a relevant pathology with rising prevalence and incidence. This study aims to assess the reference accuracy in journal articles mentioning the early use of the word 'gout'. Specifically, it investigates whether the term was indeed coined in the 13th century by the Dominican monk Randolphus of Bocking, as widely believed. Several historical sources in their original Latin were consulted to test the hypothesis of literary mentions predating Randolphus of Bocking's description. At the same time, biomedical articles spanning the last two decades were perused using specific keywords in different combinations to determine the accuracy level of references related to the earliest use of the word 'gout'. The results showed that several biomedical publications wrongly ascribed the origin of the word 'gout' to Randolphus of Bocking. Indeed, various texts predate his mention by many years. In particular, *gutta*, the Latin word used to indicate a host of rheumatological conditions including gout, is recorded as early as the 10th century in a biography dedicated to the martyred nun Saint Wiborada of St. Gall. Written by Swiss monks between AD 960 and 963, this text should be regarded as containing the earliest known adoption of the word. For this reason, scholars should now avoid quoting Randolphus of Bocking's description as the first use of the word 'gout' in Western literature.

Key words: Gout, history of medicine, review, rheumatology, uric acid.

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■ INTRODUCTION

The popular belief that gout is a disease belonging to a bygone age is an incorrect assumption. It is still a relevant pathology with a prevalence between 0.1% and 10% worldwide (1). Moreover, in the past thirty years, the global population of gouty patients has increased from 2 million to 53 million individuals, with a growth rate for gout incidence equalling 63.44% (2).

The perceived disappearance of gout may partly be ascribed to better diagnostic and therapeutic strategies in the contemporary medical setting as well as to a diminished moral focus on this condition, which is closely matched by a contextual progressive decrease in bibliometric mentions of

the very word during the last three centuries (Figure 1). Reasonably, the latter phenomenon might also be explained in the light of the relatively recent rise of the more technical term 'arthritis' (originating around the 1540s from its Latin equivalent and preceded by the late 14th-century form 'arthetica'), which is common to many conditions such as 'osteoarthritis', 'rheumatoid arthritis', 'juvenile arthritis', etc. Indeed, the word 'gout' has been used, from the Middle Ages on, to describe several rheumatological conditions, not only limited to the uric acid-related disease that we know today. Such a broad range of meanings of the word depended on the fact that certain other rheumatological conditions had not been scientifically classified

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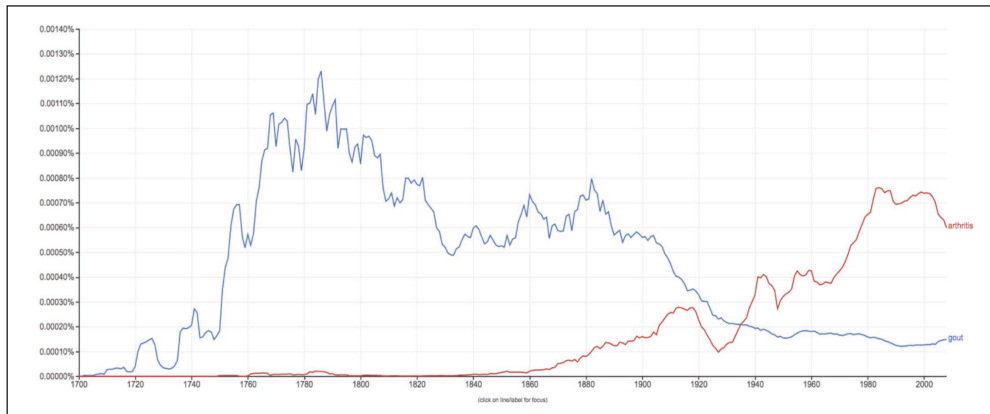


Figure 1 - Frequency of the words 'gout' (blue) and 'arthritis' (red) found in bibliographic sources printed between 1700 and 2012 (allowed chronological extreme) using the online search engine Google Books Ngram Viewer.

(3-5). A classic example is the aforementioned rheumatoid arthritis, an autoimmune disease first correctly identified by Augustin Jacob Landré-Beauvais (1772-1840) from 1800 on under the name of 'Goutte Asthénique Primitive' and subsequently by Alfred Baring Garrod (1819-1907), who named it 'Rheumatic Gout' or 'Rheumatoid Arthritis' (6). The latter definition started to become standard in 1890 with the work of Sir Archibald Edward Garrod (1857-1936) (7). The term is derived from the Latin word *gutta* (a 'drop') pointing to the medieval belief that one of the four bodily humors precipitating in the joints would produce pain in the patient (3).

In this paper we aim at i) establishing the degree of accuracy reached by researchers who discussed the early use of the word 'gout' in their studies, based on previous mentions in the biomedical literature; ii) elucidating the actual early use of the word 'gout', hence confirming the chronology proposed in previous publications or potentially locating literary mentions that might predate those.

■ MATERIALS AND METHODS

To accomplish the first objective, we perused several biomedical articles indexed and retrievable through the databases Pubmed and Google Scholar using the search words 'Randolph of Bocking', 'gout',

'historical', 'history', 'first description', 'early mention', '*gutta*' in different combinations. We limited our search to the first two decades of the present century (2000-2024) and conducted our study research between 2020 and 2024 since we wanted to assess the correctness of historical-medical mentions in the recent literature about gout. We have restricted our findings to articles (including conference proceedings), the most usual publishing venue for biomedical scholars, only excluding articles that proved inaccessible even via library request or whose standing was considered overly critical (*e.g.*, most of the publications in predatory journals). In addition, we have thus excluded master and doctoral theses, as well as popular books. While it may have proved interesting to check the whole trajectory of wrong citations originating in the 20th century, we chose to focus only on 21st-century literature in that these most recent works are those that keep actively contributing to the current spread of incorrect information in the biomedical field.

For the second aim, we consulted historical sources in the original Latin – namely: *Ex Hartmanni Vita S. Wiboradae*; *Alia Vita [S. Wiboradae Virginis et Martyris] auctore Hepidanno coenobita S.Galli*; Thietmarus Merseburgensis, *Chronicon*; Donizo, *Vita Mathildis*; *Vita Anselmi Episcopi Lucensis auctore Bardone Presbytero*; Rangerius

Lucensis, *Vita metrica Anselmi Lucensis episcopi; Alia Vita [Richardi Episcopi Cicestriensis] per Fr. Radulphum Ord. Prædicatorum. ex MS. Lovaniensi Monasterii S. Martini* - using critical editions published in the collections of 'Monumenta Germaniae Historica' and 'Acta Sanctorum', and in some cases, scrutinizing the original manuscripts:

1. St. Gallen, Stifsbibliothek, Cod. Sang. 560 (*Vita S. Wiboradae*), p. 374 (*Incipit prologus Hepidanni cenobite Sancti Galli de vita sancte Wiborade virginis atque martyris XPI*) and p. 380 (*ydroke ad extrema poene ductus essere*). Digitized version: www.e-codices.unifr.ch/it/list/one/csg/0560.
2. Ms. Stuttgart, Württembergische Landesbibliothek, Bibl. 2° 58 (*Vita Wiboradae virginis et martyris [opus tributum etiam Hartmanno Sangallensi monacho]*, Ekkehardus I Sangallensis monachus), folio 138 r. (*Egritudini, inquit, incommoditatem, gutta infestante et totum corpus meum contrahente*). Digitized version: http://digital.wlb-stuttgart.de/sammlungen/sammlung-sliste/werksansicht/?id=6&tx_dlf%5B%5D=1088&tx_dlf%5Bpage%5D=277.
3. The manuscript containing Thietmar of Merseburg's *Chronicon*, photographed in 1905. Digitized version of folio 78a (*Alvricus cui in capite suo multum nocuit migranea, quae duplex est, aut ex gutta aut ex vermibus*). Digitized version: <https://www.mgh-bibliothek.de/thietmar/fol.0081.html>.

■ RESULTS

The search yielded 21 publications, from 2002 to 2023, mentioning Randolphus of Bocking (also known as Ralph Bocking)'s description of a gouty patient as the earliest use of the word 'gout' (*gutta*) (3, 8, 9-27 – for reference 24, note that the authors clearly mention Randolphus of Bocking but, unlike other scholars, do not explicitly mention that he introduced the medical use of the word or that he was the first to use it): 11/21 (52.4%) referenced a 2006 arti-

cle by Nuki and Simkin (8), 7/21 (33.3 %) the Copeman 1964 book (28), 4/21 (19%) both Nuki and Simkin and Copeman, 1/21 (4.8%) the Antonello et al.'s article (3) [in turn quoting Copeman's book (28)], 1/21 (4.8%) the Savica et al.'s article (14) [in turn quoting both Nuki and Simkin's article and Copeman's book (8, 28)], 1/21 (4.8%) the Pillinger et al.'s article (9) [in turn quoting Nuki and Simkin's article (8)], while 2/21 (9.5%) had no reference for their statement.

The sources reported above indicate that the Dominican friar Randolphus of Bocking (1197-1258), the private chaplain to the Bishop of Chichester, hinted at the miraculous healing of a certain Ricardus de Catham, a steward with ministerial functions, from a severe form of gout. Although the disease had almost left him paralyzed in the feet [*hic cum gutta, quam podagram vel arteticam vocant, frequenter vexaretur, vice quadam in tantum ea torquebatur, quod vix pedes movere poterat*], he was cured simply by putting on the bishop's boots (29).

However, the word *gutta* predates Randolphus of Bocking: it was used in at least two earlier biographies: Donizo's *Vita Mathildis* (ca. 1111-1115), and pseudo-Bardo's *Vita Anselmi Episcopi Lucensis*, written shortly after Anselm's death (March 18, 1086), who was Bishop of Lucca and also a spiritual guide to Countess Matilda (1046-1115) (30, 31).

In the first case, *gutta* certainly means 'gout', that is in a rheumatological sense (32). Donizo (ca. 1071- 1130?) was first a monk and then the abbot at the Benedictine monastery of Sant'Apollonio of Canossa. Likely born in the village of Canossa, he wrote several works in Latin, including the *Enarratio Genesis* (a fragmentary commentary on the Book of Genesis) and the *Vita Mathildis*, in which he poetically celebrates Countess Matilda of Tuscany and her outstanding life. In Book II, the monk reports that the Countess became ill and gives details on her disease using the words *frigore percussa, doluit nimis ilico gutta / vixque die mansit patris ad missam venerandi* ("hit by the cold, she immedi-

ately suffered a great pain from gout / and the next day could barely attend Mass celebrated by the venerable father”) (31). As a consequence, after seven months, Matilda of Tuscany eventually died, ‘of gout’, at the age of 69.

As to the mentions in the pseudo-Bardo, we read several miraculous healings from *gutta* that occurred after Anselm’s death and after the sick had either prayed or visited the bishop’s grave. In some cases, the word seems to indicate ‘gout’, for instance when reporting of a *vir quidam Lanzo Iudex nomine, Mediolanensis genere, Tarvisinus habitatione, qui, ficus agritudine vehementer virente et guttae morbo graviter eum in pedibus ferente, et gressu fuerat privatus, et requies somni penitus sibi nulla dabatur* (“a certain man named Lanzo Iudex, from Milan but now living in Treviso, who was so hardly tormented by hemorrhoids and gout in the feet that he could not walk nor find rest in sleep”) (30). Among other cases, it is worth mentioning that of a French priest named Everardus *cui ambos minores digitos unius manus gutta subito superveniens rigidos reddiderat* (“whose two small fingers of one hand suddenly became stiff because of gout”).

Both the episodes of Lanzo Trivisus and presbyter Ebrardus also appear in the *Vita metrica Anselmi Lucensis episcopi*, an elaboration of the pseudo-Bardo’s work written between 1096 and 1099 by Rangearius of Lucca (fl. 11th cent.), using the same word, *gutta* (33).

Before these mentions, the word *gutta* was used by Thietmar, Bishop of Merseburg (976-1018), who wrote about it in his *Chronicon* (1012-1018) as the potential etiology of the migraine experienced by a monk named Alvicus, either due to gout and to worms (*cui in capite suo multum nocuit migranea, quae duplex est, aut ex gutta aut ex vermibus*) (34), as precisely underlined already in 1943 in an article by Neuwirth, who also noted its use, limited but self-evident, by other authors such as Geoffroi de Villehardouin (1160-1213) in his *Histoire de l’empire de Constantinople sous les empereurs françois* (1207-1212) as well as the famous Salernitan Medical

school (35). For instance, in the *Regimen Sanitatis Salernitanum* or *Flos Medicinae Scholae Salerni* (XII-XIII ca.), gout is mentioned in reference to the herb named *Benedicta* (*Geum urbanum*): *Articulos purgat benedicta profundos; artheticam guttam sanat fractamque podagram et renes flores et vesicam benedicta*; and *Pars nona (Nosologica), caput V ‘De gutta’*.

After further study, an even older mention of the word ‘*gutta*’ can be detected. It can be found in the *Vita Wiboradae virginis et martyris* (‘The Life of Saint Wiborada’), a Benedictine nun and an anchoress at the Swiss Abbey of St. Gall, who suffered martyrdom during the Hungarian invasions in AD 926. Her two biographies were both composed by monks at the same Abbey: the former started around AD 960 by Hartmannus and completed by Ekkeard the Elder (died AD 973) (36), and the latter was penned around the year 1075 by Herimannus (37) – in the literature, it is important to mention that the two authors appear sometimes to be confused or even identified with one another.

As to the first *Vita*, in the ending paragraphs, we read of a visit by Ulrich, Abbot of Augsburg (AD 893 - July 4, AD 973) (36, 38) and a former close friend of Wiborada, which occurred when Craloh was Abbot (942-958). Ulrich first visited Wiborada’s tomb and then asked a monk by the name of Ekkeard, *virum venerabilem [...] et benedictum* (‘a venerable and well-learned man) if there existed any accounts written on the martyr’s life. Ekkeard answered negatively and apologized for not yet having composed one himself: moreover, he confessed that he once had been tormented by gout affecting his whole body (*Egritudini, inquit, incommoditatem, gutta infestante et totum corpus meum contrahente*) and was ultimately cured after wearing Wiborada’s cilice. He had thus vowed he would write a work celebrating the saint’s curative action, but, because of several obstacles, he had not yet been capable of fulfilling his promise. Thus, Ekkeard finally completed his duty, testifying about several miraculous healings that occurred as a result of visiting Wiborada’s grave. The Hartman-

nus-Ekkeard work was later (1075) continued by Herimannus (or, as in the St. Gall manuscript, *Hepidannus*), another monk, who added that Ekkeard *ydroke ad extrema pene ductus esset* ('was affected by dropsy to extreme pain') (37, 38).

■ DISCUSSION AND CONCLUSIONS

Nuki and Simkin article provides a reference for the claim that Randolphus of Bocking was the first writer to use the word *gutta* by quoting Copeman's 1964 monograph (8, 28). Considering that our results show that such a statement in the publications on the topic of gout and its history in the first twenty-three years of this millennium is supported either by quoting Nuki and Simkin (52.5%), Copeman (33.3%) or both (19% – this case probably indicating a primary perusal of the Nuki and Simkin article and identification of the Copeman book in the article's references), it appears evident that either an error or a misinterpretation occurred in Copeman's publication and that this was later amplified by the Nuki & Simkin's work (8). In his work, Copeman wrote (28, p. 2): "The first person who seems to have used the word gout in the modern sense to denote a painful periodical swelling of the big toe was the Dominican monk, Randolphus of Bocking [...]. He recounted that he was a great sufferer with *gutta quam podagram vel arteticam vocant* [...], and that he was completely cured by wearing a pair of his reverend superior's boots".

This passage clearly shows how the main error lies in Copeman's attribution of the first report of gout using this definition (*i.e.*, *gutta*). It should be highlighted, however, that Copeman wrote 'seems to have used', hence conceding some doubt, which later disappeared in the retrieved biomedical publications. This passage from Copeman's book is, however, revealing the superficial handling of the historical data on Randolphus of Bocking's description. As seen above, Randolphus only speaks of a podal presentation of gout and vaguely describes a deformation of the feet but

does not specifically mention the 'big toe'. Moreover, according to Copeman, Randolphus himself is the gouty patient, while the Bishop's steward, Ricardus de Catham, is unequivocally indicated as the sufferer miraculously healed by his master's boots.

Furthermore, the Latin term *gutta* is attested as early as before AD 1000, and this should be regarded as the earliest known adoption of the word. For this reason, scholars should avoid quoting Randolphus of Bocking's 13th-century mention as the first use of the word gout in Western literature, a problem that is encountered in several publications, likely as a result of original misquotations.

As previously explained, at this point in history the word *gutta* is used to indicate a host of rheumatological conditions including, but not limited to uric acid-related gout: notably, the above-seen case involving Everardus is extremely complex in its diagnostic interpretation in that both a retrospective diagnosis of uric acid-related gout and rheumatoid arthritis could theoretically apply, which speaks for the much broader range of meanings the word gout.

The success of the word *gutta*, ultimately yielding the term 'gout', is still a problem that deserves the attention of linguists and philologists. According to Porter and Rousseau (39, p. 20) the origin of the term gout is considered mysterious and its use by Randolphus Bocking is merely mentioned without declaring it – unlike other authors did – the first ever use of the word in a medical sense: "In Latin Christendom the term '*gutta*' became standardly applied to podagra. It was used, for instance, by Randolphus Bocking".

We propose that it seems to have substituted more dignified words such as *podagra* in conjunction with the spread of vulgar languages, attested from the mid-9th century AD in various contexts such as *The Oaths of Strasbourg* (842) in the Germanophonic and Francophonic areas, the *Veronese Riddle* (end of 8th-beginning of 9th centuries), the *Inscription of Saint Clement and Sisinnius* (end of the 11th century), etc. Essentially, it does not appear unrealistic that the *lectio facilior* (*gutta*), an everyday word,

ended up being preferred over its Greek-derived synonym *podagra*.

Finally, the complex history of the word 'gutta' and its use in the past of medicine, helps us recognize how – especially in a biomedical setting more and more focused on its latest technological advances – avoiding the loss of its rich historical medical heritage should be an important target for future generations of physicians. This appears to be particularly significant at a time when old scourges like pandemics caused by infectious agents (40) have proved to be able to shake the foundations and certainties of contemporary medicine catalyzing a rediscovery of old-fashioned preventive strategies such as the AD 1377-established and much later used 'quarantine' (41).

Nonetheless – as recently highlighted by Damiani *et al.* in the case of the wrong attribution of the expression *morbus dominorum*, referred to gout affecting the upper classes (42), to the Roman author Suetonius (AD 69-after AD 122) (43) – this rediscovery must be achieved solely through a rigorous approach and a proper perusal of the literature, hence avoiding the well-known phenomenon of misquotation of historically relevant content in biomedical publication (44).

Contributions

All the authors made a substantial intellectual contribution, read and approved the final version of the manuscript, and agreed to be accountable for all aspects of the work.

Conflict of interest:

The authors declare no competing interests.

Ethics approval and consent to participate:

Not applicable.

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Availability of data and materials

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