

Historical Medical Value of *Donguibogam*

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Key Words

Donguibogam, Heo jun, Korean medicine, oriental medicine

Abstract

Oriental medicine, since its origin in China, has had a long history extending over 2000 years. Today, it comprises several types of medicine predominately practiced in East Asia, including traditional Chinese, traditional Korean, and Kampo medicine. The distinctive medical system of traditional Korean medicine was established shortly after the publication of *Donguibogam* by Dr. Heo Jun in 1613. *Donguibogam* is highly acclaimed across East Asia; in 2009, in light of its historical medical value, the United Nations Educational, Scientific, and Cultural Organization registered the book on its cultural heritage list. Here, we review the historical medical value of *Donguibogam*. The findings confirm that *Donguibogam* developed a unique and independent form of traditional Korean medicine and innovatively reformed the disease classification system. Moreover, *Donguibogam* emphasized the importance of disease prevention and medical pragmatism. This book also accelerated the development of folk medicine. Owing to its historical medical value, *Donguibogam* is now considered the 'bible' of Oriental medicine. Its wide acceptance has contributed to the expansion of Korean medicine utilization among the general public. *Donguibogam* has also played an important role in the establishment of traditional Korean medicine as a universally valid and original form of medicine, independent of traditional Chinese medicine.

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1. Introduction

Oriental medicine originated in China and has a long history extending over 2000 years. It is a traditional medical science, which regards the human body as a universe and understands body function, health maintenance, and the treatment of disease according to comprehensive and systemic approaches [1]. It, therefore, contrasts from contemporary medicine in its understanding of human physiology and pathology, in addition to its approach to health maintenance and disease prevention or treatment.

In the era of highly-advanced contemporary medicine, Oriental medicine retains its pivotal role as a public medical system in East Asia due to its view that human beings comprise both body and soul. From ancient times to the present day, the basic physiology and pathogenesis of human disease have remained unchanged. In addition, disease pathogenesis, such as emotion, sentiment, weather, environment, bacteria, viruses, famine, excessive eating, overexertion, and injury, has remained constant during this time. Various medical experiences compiled over thousands of years are still being utilized with the same efficacy in the treatment of disease today.

Today, Oriental medicine is a collective term for several types of medicine predominately practiced in East Asia. It comprises traditional Chinese medicine (TCM), traditional Korean medicine (TKM), and Kampo medicine [2]. In particular, TKM became an established, distinctive medical system following the publication of *Donguibogam* by Dr. Heo Jun in 1613 [3].

Donguibogam, which literally means "Principles and Practice of Eastern Medicine" [4] or "Treasured Paragon of Eastern Medicine" [5], is an encyclopedic source of Oriental medical knowledge and techniques.

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The book, published 400 years ago, is a representation of Oriental medicine and is still widely utilized among traditional medical doctors today. Dr. Lee Je-Ma, the originator of Sasang constitutional medicine, a unique medical system in Korean medicine, predicted that the publication of *Donguibogam* would lead to the inclusion of Oriental medicine in current medical practice [6, 7]. In the preface of a book published in Kyoto, Japan in 1724, Minamoto Motoru concluded that *Donguibogam* could assist in the reduction of mortality and serve as an extensive reference of esoteric knowledge for doctors. The Chinese doctor Ling Yu also praised the value of the book [5].

Donguibogam is highly acclaimed across all nations of East Asia. In consideration of its medical history value, in 2009, the United Nations Educational, Scientific, and Cultural Organization registered the book on its cultural heritage list [8]. This registration has led to a global acknowledgement of its value in preventive medicine and public health care, which was virtually unprecedented up to the 19th century [4]. In this article, we review the historical medical value of *Donguibogam*, which today exerts a prominent influence in the practice of Oriental medicine.

2. *Donguibogam* developed a unique and independent form of traditional Korean medicine

Dr. Heo Jun first proposed traditional Korean medicine as a form of Eastern medicine in the publication *Donguibogam* [6]. Following that publication, Eastern medicine, which had not been previously utilized, formed traditional Korean medicine, independent from traditional Chinese medicine. Dr. Heo Jun wrote: "Li Dong Yuan is the northern doctor. Luo Qian Fu inherited his teachings and prospered in Jiang Su and Zhe Jiang provinces. Zhu Dan Xi is the southern doctor. Liu Zong Hou inherited his teachings and flourished in Shan Xi province". This demonstrates the distinction between the northern and the southern medical schools in China. Because Korea is located on the Eastern edge of China and has experienced steady growth over the centuries, Korean medicine was proposed as Eastern medicine [5]. Consequently, the newly-classified Eastern medicine could compete equally with northern and southern medicine.

These classifications are based, not only region, but also on medical tendency and individuality. The definition of Eastern medicine was derived from the belief that it was a unique medical science, with an independent development from Chinese medicine, intended to be suitable for Koreans. Although *Donguibogam* cited a large number of Chinese medical texts, it was considered to be representative of Korean medicine due to its unique perspectives on the human body and treatment of disease [9]. It was also intended to be an original and universally-valid form of medicine. By adopting a unique classification method and by incorporating a variety of ailments, common and rare symptoms, diagnoses, acupuncture and moxibustion techniques, and prescriptions, *Donguibogam* was systematically edited to a greater extent than any other document of its kind published at that time in East Asia [4].

Dr. Heo Jun analyzed various medical theories and prac-

tices and updated disease classifications from pre-existing medical books into a system based on essence, Qi, and spirit. This was derived from his confidence and principles regarding the universality of Oriental medicine and resulted in the development of editing principles for subsequent publications of medical books. In Japan, Miki Sakae claimed that Dr. Heo Jun had established an innovative medicine through the incorporation of TKM with various pre-existing medical theories and practices into modern TCM in the Ming Dynasty and that this practical medical view was embodied in *Donguibogam* [10]. These comments acknowledged the universal validity and originality of the book [6]. Current diagnostic and treatment characteristics are based on independent Korean medicine, as opposed to conventional TCM. This paradigm shift is represented in *Donguibogam* and is evident from the close relationship between the book and current national medical examinations [11].

3. *Donguibogam* innovatively reformed the disease classification system

Donguibogam collated and organized all disease theories and prescriptions available before the Ming Dynasty. The book established a new and advanced form of medicine, independent from the TCM of the Jin and the Yuan Dynasties, which lacked universal validity. This was possible because the book formulated an unprecedented and independent disease classification system. This new and innovative system contributed to the universal validation of the local medicine of East Asia included in the book. In *Donguibogam*, Qi and spirits were considered basic elements of the human body, and disease and pathogenesis, which were related to these elements, were analyzed and presented in an easily accessible order. This classification system was different from symptom-based system used in China. Only *Donguibogam* attempted to classify disease by primarily focusing on the body [12]. The book divided disease according to various internal and external body factors, with its rationale based on the essentials of life such as essence, Qi, and spirit [13].

4. *Donguibogam* emphasized the importance of preventive medicine

In addition to treatment, *Donguibogam* also recognized the importance of disease prevention and recommended this as the most effective approach. The idea of preventive medicine was influenced by Taoism [14]. Dr. Heo Jun emphasized the importance of Taoism, stating that "Taoism concentrates on clear and serene cultivation while medicine treats with herbs, diet, acupuncture, and moxibustion. Thus, Taoism reaches the bottom of the human body and mind while medicine gets only its surface" [4]. One of his objectives for the publication of *Donguibogam* was to emphasize the importance of a health regimen. According to this philosophy, human diseases do not occur due to their cause alone; instead, they are a consequence of a va-

riety of complex physical, social, and mental interactions. Based on this inference, *Donguibogam* investigated health issues and diseases from the perspective of preventive medicine [4]. In the preface, the practice of a good health regimen was emphasized as the most important approach, followed secondarily by the administration of medication; this was because disease may be caused by inappropriate health regimens [3]. This opinion played an important role in the shift from treatment-focused medicine to preventive medicine.

Donguibogam has not been the sole driver emphasizing the importance of good health regimens; there had been numerous previous medical publications on the same topic. In addition, most medical text books include content on health regimens. However, with the exception of specialized books on health regimens or *Hunag Di Nei Jing* (Yellow Emperor's Inner Canon), *Donguibogam* was the first book to contain an edited health regimen in the first chapter and to explain the associated organs. This contributed to the emphasis on the importance of disease prevention as a result of good health regimens.

5. *Donguibogam* highlighted the importance of medical pragmatism

Some critics of *Donguibogam* claim that the book is merely an encyclopedia cited and edited from medical books from the Han Dynasty to the Ming Dynasty and that the prescriptions are only suitable to the Chinese, not the Koreans. These opinions are inaccurate because the prescriptions in *Donguibogam* were only cited following clinical verification [14]. In his book, *Suminmyojen*, King Jungjo credited *Donguibogam* for considering the differences in physical constitutions and regional characteristics between human generations and geographic areas, respectively [15].

Donguibogam adopts a pragmatic approach due to its consistent editing and extensive content. The book contains information on disease pathology and treatment based on symptoms, with prescriptions quoted in the references. In particular, Dr. Heo Jun included both public and personal prescriptions and was, therefore, able to recommend a wider variety of therapies [16].

Donguibogam also takes into consideration the distinctiveness of Korean medicine in relation to its universal validity. The book includes herbal folk medicine, which had been utilized for hundreds of years. Prescriptions were adjusted according to the physical constitution of Koreans, avoiding herbal medicines with excessively hot or cold properties, but including effective remedies. This was achieved based on Dr. Heo Jun's extensive clinical experience and medical knowledge [12].

In the introduction of *Donguibogam*, Dr. Heo Jun stated that it was unreasonable to recommend 17.5 g as a standard dose in books such as *Shiyidexiaofang* and *Yixuezhengzhuang*, unless the prescription only comprised four or five herbs. For prescriptions composed of between 20 to 30 herbs, the dose of each herb should only be 0.5 to 1.0 g, which is less than the effective dose. Recent books, such as *Gojinyijian* and *Wanbinghuichun*, recommend effective

prescription doses within the range of 24.5 or 28.0 to 37.5 g and, similarly, this constitutes the basis for the prescription dosage guidance in *Donguibogam* [3].

In addition to adopting medical pragmatism, Dr. Heo Jun provided detailed information on herbs such as their common name, origin, harvest season, and extraction process. This demonstrates that the herbal medicine practices included in his book had been widely practiced. In *Donguibogam*, the herb *Adenophora triphylla* was replaced with *Codonopsis lanceolata* (which is of similar appearance). *Codonopsis* was preferentially selected because Koreans have accumulated extensive medical experience with this herb, which they have utilized, instead of *Adenophora*, for hundreds of years [6, 17]. No side effects associated with these two herbs have been reported when the two herbs have been administered under different names.

6. *Donguibogam* initiated the development of folk medicine

In the preface of *Donguibogam*, a claim was made that many people had died due to limited access to medication or lack of available doctors, despite the local abundance of medicinal herbs, because they were uninformed of their potential efficacy [3, 16]. Therefore, Dr. Heo Jun believed that informing the general public of the common names of medicinal herbs was essential. Because the medicinal herbs required for prescriptions did not grow in Korea, restrictions were placed on the free utilization of these prescriptions [18]. In the introduction of the book, Dr. Heo Jun explained that the majority of herbal medicines with Chinese names were not recognized by the general public [3]. Therefore, herbal medicines with a widely-recognized common name were selected. In some sections of the book, the Korean alphabet was adopted, together with Chinese characters, in order to improve the accessibility and the ease of use among the uneducated public (Chinese characters were only understood by the upper class) [4].

For the conventional use of the book, herbs were introduced with their Chinese name in addition to their common name, regional growing district, harvest season, and processing methods. In *Donguibogam*, the common names of 637 out of 1,403 herbs were included for ease of use. Imported herbs only accounted for 7.2% of the herbs, reinforcing the importance of simple and convenient utilization of local herbs [6]. Herbal prescriptions containing numerous herbs and of large doses were recognized to be unaffordable for lower classes. Therefore, simple herb prescriptions took precedence in the book in order to improve accessibility among the general population. Prescriptions for famine relief and hunger were also featured in *Donguibogam* in order to improve the lives of people who suffered from war and famine.

7. *Donguibogam* has become the 'bible' of Oriental medicine

Traditional diagnostic methods and classifications have been widely shared among physicians throughout the history of East Asian countries. However, the detailed interpretations of diagnostic information have not always been identical [11]. Following the publication of *Donguibogam*, the school of Bogam was implemented; this, along with other schools that followed the medical knowledge from books such as *Wanbinghuichun*, *Yixuerumen*, *Yixuezhengzhu*, *Jingyuequanshu*, and *Yizongjinjian*, became the main stream of Korean medicine. However, *Donguibogam* was the most effective for enabling doctors to follow its medical practice.

Hwang Doyeon wrote the well-known medical book *Bangyakhappyun* [19] and referenced some of the content from *Donguibogam* in his other publication *Euijongsonik* [20]. He believed that, due to the high level of editing, its content could facilitate clinical practices; this is an example of *Donguibogam* becoming the 'bible' of Oriental medicine [6]. The majority of medical books in Korean medicine published since *Donguibogam* have been influenced to some extent by the book and its classification system. Due to the high quality of its medical content, *Donguibogam* has become a highly-regarded source for Korean medicine.

8. *Donguibogam* has been criticized in some points

Clearly, *Donguibogam* has had a huge influence on the development of Korean medicine. However, some criticisms, which are being raised about the influence of *Donguibogam*, are as follows [21, 22]:

First, *Donguibogam* is blamed for having acted as a barrier to the development of medical theory until the advent of Sasang constitutional medicine from Dr Lee Je-Ma's *Donguisusebowon*. In fact, Korean medicine was somewhat stagnant after the publication of *Donguibogam*. Prescriptions based on *Jingyuequanshu* or *Wenbingxue*, medical science of epidemic febrile disease, were dealt with in a fairly low proportion in Korean medicine. Those prescriptions were mostly not mentioned in *Donguibogam*. This view points out that critics have overlooked the historical background of the decline of national power in the late Josun Dynasty. *Donguibogam* mentioned the prescriptions from books that had published only tens of years before, such as *Yixuerumen* in 1575 and *Wanbinghuichun* in 1587. This shows that *Donguibogam* included the latest knowledge on medicine. However, no medical books, except for *Jeungshinpyun* in 1799 and *Euibangchalyo* in 1906, have been published since *Donguibogam*. In addition, *Jeungshinpyun* was a digested edition of *Donguibogam* that was published by the order of King Jungjo. Thus, the government of the late Josun Dynasty seems not to have able to afford the publication of medical book, which eventually would act as a substantial barrier to the medical development of Korean medicine.

Second, general medical books aim for higher effectiveness. However, *Donguibogam* aimed more for using convenient herbs that ordinary people and patients could get

easily than for raising effectiveness, eventually lowering the effectiveness of herbal prescriptions. Most medical books before *Donguibogam* suggested using expensive herbal medicine while *Donguibogam* tried to use herbs that grew on hills or in fields and could be obtained easily at lower price, even though the effectiveness might be lower than that of expensive herbs. For same reason, no prescriptions with many herbs but simple herb prescriptions were predominant in the book.

Third, *Donguibogam* mentions irrational prescriptions, which sometimes causes the question of what in the book can and cannot be trusted. The book [3] contains prescriptions for converting semen to blood or changing the sex of a fetus. It also mentions prescriptions on how to make a man invisible or how to give a monkey the ability to speak. Those prescriptions could mislead some doctors into faulty medical practice. Those prescriptions seemed to have been placed in the book out of a desire to present as many folk medicines or remedies as possible.

Fourth, *Donguibogam* used heavy metals in prescriptions. The use of heavy metals seemed to have been influenced by Taoism. The book mentioned the effect of mercury as a remedy for the hearing ghost or for making a man invisible, which seemed to express hallucinations from mercury intoxication. Nevertheless, the use of those heavy metals, even for treatment, can result in a risk of poisoning.

9. Conclusion

Donguibogam was first published 400 years ago; however, it is still widely utilized among scholars and doctors in the current practice of Oriental medicine. Its innovative disease classification system based on essence, Qi, and spirit and its emphasis on the importance of disease prevention through the promotion of health regimens contributes to the book's historical medical value. It introduced a unique and pragmatic form of medicine to the Korean population and eventually contributed to the expansion of Korean medicine among the general public. It also played an important role in the establishment of a universally valid and original form of TKM, independent of TCM. This is reflected by the fact that *Donguibogam* has been reprinted over 40 times during the past four centuries, not only in Korea but also across numerous Asian regions, including China and Japan [4], in spite of some criticism.

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Conflict of interest

The authors declare that there are no conflict of interest.

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References

1. Won JH. [How to enhance the effectiveness of medicinal herbs]. Seoul: Daesung Culture Press; 1995. p. 1. Korean.
2. Oriental medicine [internet]. Wikipedia; [cited Sep 07, 2015]. Available from: https://en.wikipedia.org/wiki/Oriental_medicine.
3. Heo J. [*Donguibogam*]. Seoul: Namsandang; 1980. p. 1, 69, 82, 104, 597, 601. Korean.
4. Principles and practice of Eastern medicine (the nomination form) [internet]. Paris: UNESCO; [cited Feb 01, 2016]. Available from: http://portal.unesco.org/ci/en/files/27075/12133693253Korea_Donguibogam.pdf/Korea%2BDonguibogam.pdf.
5. Ahn S. [How to read *Donguibogam* easily]. Daejeon: Korean Institute of Oriental Medicine; 2008. p. 14, 33, 55, 56. Korean.
6. Won JH. [Medical history value of *Donguibogam*]. National Archives of Korea. 2013;23:28-33. Korean.
7. Lee JM. [Principle of constitutional medicine] Seoul: Haenglim Press; 1985. p. 12. Korean.
8. Memory of the World. *Donguibogam* [internet]. Paris: UNESCO; [cited Feb 01, 2016]. Available from: <http://www.unesco.org/new/en/communication-and-information/flagship-project-activities/memory-of-the-world/register/full-list-of-registered-heritage/registered-heritage-page-2/donguibogam-principles-and-practice-of-eastern-medicine>.
9. Lee T, Jung WM, Lee IS, Lee YS, Lee H, Park HJ, *et al*. Data mining of acupoint characteristics from the classical medical text: *Donguibogam* of Korean medicine. Evid Based Complement Alternat Med. 2014;2014:ID329563.
10. Miki S. [Medical and disease history of Korea]. Self published. 1955. p. 194. Korean.
11. Jung JY, Lee JH, Chung SH. The influence of *Donguibogam* during the middle Joseon era based on clinical records on low back pain in Seungjeongwon ilgi. Uisahak. 2011;20(1):1-28.
12. Dongui science research center. *Donguibogam* internal medicine. Seoul: Humanist; 2002. p. 1-63. Korean.
13. Park GR. [A bibliographic study on *Donguibogam*] [master's thesis]. [Gwangju]: Chunnam National University; 2009. 137 p. Korean.
14. Jung WY. [Ho chun's medical thought in *Tongui pogam*]. Journal of the Korean History of Science Society. 1991;13(2):123-38. Korean.
15. Dangok gyunghumbangcho suminmyojun. [Dangok gyunghumbangcho suminmyojun]. Seoul: Orom System; 1995. p. 35. Korean.
16. Han DH. [Heo jun is still alive]. Seoul: Suseowon; 2002. p. 255. Korean.
17. Won JH. [A study on the value of *Dongui Bogam* in medical science]. Seoul: Jangseogak; 2010. p. 39-57. Korean.
18. Oh J. The unique theory of cold damage advocated by medical practitioners in the latter era of the Joseon Dynasty. Uisahak. 2012;21(1):1-24.
19. Hwang DY. [Eujongsonik]. Seoul: Euyaksa; 1976. 1-127 p. Korean.
20. Hwang DY. [Bangyakhappyun]. Seoul: Namsandang; 1986. 1-187 p. Korean.
21. Kim DY. [Here is no more Korean medicine]. Seoul: Sanhae; 2006. p. 5-27. Korean.
22. [*Donguibogam*] [internet]. Seoul: Namuwiki; [cited Feb 07, 2016]. Available from: <https://namu.wiki/w/%EB%8F%99%EC%9D%98%EB%B3%B4%EA%B0%90>. Korean.