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Jón Pétursson and his forgotten contribution to the clinical description of rheumatoid arthritis

INTRODUCTION

Rheumatoid arthritis is a systemic connective tissue disease and the most common inflammatory joint disease. The history of this disease is controversial because no convincing evidence of the occurrence of rheumatoid arthritis in Europe in ancient times has been found, in contrast to descriptions and paleorheumatological evidence of the occurrence of ankylosing arthritis [1, 2]. Certain features that may indicate the occurrence of rheumatoid arthritis were found in the skeletons of ancient inhabitants of America, hence the hypothesis that the disease originated in the “New World” [3]. Regardless of the controversy over the origin of rheumatoid arthritis, the doctoral thesis of Augustin Jacob Landré-Beauvais (1772–1840), published in Paris in 1800, is considered to be the first relatively accurate description of the disease in question [4].

In 1992, by Helga Jónsson reported in the journal of the Sothern Swedish Southern Swedish Society for the History of Medicine (Sydsvenska Medicinhistoriska Sällskapet) a clinical description of rheumatoid arthritis in a book written in Icelandic by Dr. Jón Pétursson and published in 1782 [5]. Professor Helgi Jónsson headed the Department of Rheumatology at the University of Iceland in Reykjavik for many years. A few years later, a paper on the same subject was published in the Scandinavian Journal of Rheumatology [6–8] by Helga Jónsson and Jón Helgason. Since then, most textbooks of rheumatology mention Jón Pétursson’s priority in the discovery of rheumatoid arthritis, but still little is known about

the author of the first, forgotten description. I decided to search in Icelandic medico-historical literature in the absence of English publications on the mentioned above topic. Surprisingly, there are also almost no biographical publications of Jón Pétursson in Icelandic. The basic study is the work of Örn Bjarnason, published in two parts in *Lækna- blaðið*, the medical journal of Iceland which appeared in 2011 [9, 10]. The biographical note published only in Icelandic on Wikipedia is based on it. The remaining mentions in Icelandic medical literature refer to Jón Pétursson’s priority without any details.

The study was designed to summarize available data on life and activity of Jón Pétursson.

LIFE OF JÓN PÉTURSSON

Jón Pétursson was born in 1733 in Hofsa in the large Svarfaðardalur valley located in North-Central Iceland on the Svarfaðardalsá River. The river flows almost entirely through the area of Skagafjörður — a commune in Northern Iceland, in the Norðurland vestra region, located on the fjord of the same name.

Jón’s father, Pétur Jónsson, came from Hnjúka in the same region, and he initially had lived in several places in the valley, but then became a churchman and builder of religious buildings in Hólar í Hjaltadal — a small settlement also located in the municipality of Skagafjörður. Jón’s mother was Margrét Illugadóttir Jónsson, a farmer and shoe repairer who came from Nesi in Höfðahverfi in Grýtubakkahreppi, a town located east of

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Eyjafjörður — the longest Icelandic fjord in North-Central Iceland, separating the Trörlaskagi and Flateyjarskagi peninsulas.

Jón Pétursson studied at a school in Hólaskóli, which had the status of a minor seminary. He graduated from school on May 14, 1759. In 1760, he became a deacon at the Munkaþverá monastery in Staðarbyggð in Eyjafjörður.

Iceland faced a shortage of doctors in the 18th century. This concerned especially the northern regions of the country. In this situation, Dr. Bjarni Pálsson, responsible for medical care availability to the Icelandic people, was looking for candidates for medical studies. Bjarni Pálsson (1719–1779) was an Icelandic physician and naturalist who was the first in history to be appointed by the King of Denmark to the newly created position of the country's general medical officer. Dr. Bjarni Pálsson asked Bishop Gísli Magnússon (1712–1779), the Ordinary Bishop of Hólar, to nominate a candidate for medical education. Jón Pétursson, the intelligent but poor young deacon was selected. He was sent to the settlement of Nes near Seltjörn (Nes við Seltjörn) in Southwestern Iceland in 1762. There he was receiving medical education for two years. In 1764, he met Johan Gerald König (1728–1785), a royal botanist and physician in the service of the king Frederick V. Johan Gerald König was a former student of Carl von Linné, known as Carl Linnaeus (1707–1778). Johann G. König was born in Polish Livonia (Polnisch-Livland) near the town of Kreutzburg (now: Krustpils, Latvia). He traveled a lot and died in India. Johan Gerald König's task was to collect plants from the entire Kingdom of Denmark for the monographic publication entitled: *Flora Danica*. Jón Pétursson joined Johan G. König and his accompanying illustrator Sören Johannes Helt in the search for plants, and he guided them in Iceland in 1764–1765 in collecting herbs and other plants. The cooperation resulted in a friendship, and Jón Pétursson left with them for Copenhagen in 1765 to study medicine there. Little is known about the course of his university studies. In 1768 or 1769, a treatise was published: *Den saa kaldedlandske Skiörbug, beskoven udi en kort afhandling* (Description of the common rot or scurvy in Iceland). Contrary to the title, the work rather concerns leprosy, collectively known as “rot or scurvy”. The book contains a printed entry of acceptance for printing by Christen Lodberg Friis, a member of the Uni-

versity's Scientific Council, which may confirm that Jón Pétursson obtained a bachelor's degree in medicine. However, there is no evidence that he completed his medical studies and perhaps did not take the final exam. He studied in Hafnar, at the school of military surgeons (The Royal Danish Naval Academy — *Søværnets Officersskole*), but it is not known whether he graduated. However, it seems that without passing the compulsory examination he would not have been employed as a physician on a ship belonging to the Danish king's fleet. In the years 1770–1771, he sailed on ships, traveling, among others, to Spain, Algeria and Egypt.

He returned to Iceland in 1772. From 1772 to 1775, Jón Pétursson stayed in Nesi near Seltjörn and was an assistant to the country's physician and first pharmacist, Björn Jónsson, who came to work in Nesi in 1772. Later, in 1775, Jón Pétursson became an orthopedic doctor in Norðlendingfjörður region and lived in Viðvík in Skagafjörður. His health was deteriorating. He probably suffered from rheumatoid arthritis or some other form of arthritis. Additionally, his eyesight was getting worse. Details on Jón Pétursson's health are contained in his correspondence and are described by Örn Bjarnason [10]. Due to his poor health, he asked to be assigned an assistant. Dr. Ari Arason, a former student of Jón Pétursson was appointed to the post of his assistant physician. He was appointed on October 8, 1795, and later on July 18, 1801, he was appointed a regional general physician in Norðlendingfjörður. The appointment took place a few months before the death of Jón Pétursson, who died in the last months of 1801.

In addition to the work on arthritis discussed below, Jón Pétursson wrote an extensive book addressed to “ordinary” people and discussing health problems. It was published only after the author's death, due to fears that it would reveal “diseases occurring in Iceland”. The book is titled: *Lækningabók fyrir almúga* (“A medicine book for ordinary people”) (Fig. 1). The book has 222 pages and is divided into paragraphs, including those about: the most common childhood diseases in Iceland, women's diseases, the most common diseases of men and women, “external” (skin) diseases, emetics and enemas, diet, and final paragraph entitled, how to properly describe the disease to a doctor. A detailed discussion of the book can be found in the Icelandic publication by Örn Bjarnason [10].

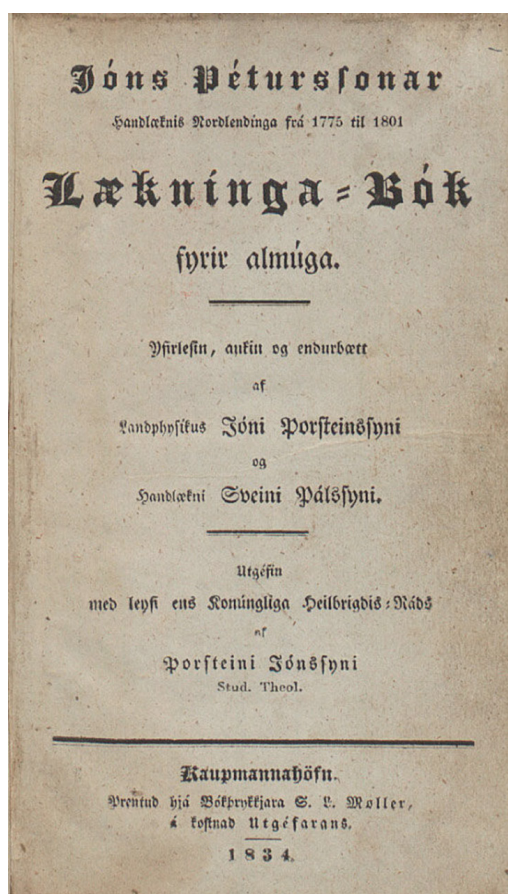


Figure 1. Jón Pétursson's posthumously published work *A Medical Book for Ordinary People*, printed in Copenhagen in 1834

JÓN PÉTURSSON'S BOOK ON ARTHRITIS

In 1782, Jón Pétursson published a book on rheumatoid arthritis. According to the preserved materials as mentioned earlier, he himself suffered from some form of arthritis, probably rheumatoid arthritis. The book appeared in print in 1782 but was written earlier because at the beginning of the publication, there is a short introductory comment by the Norwegian physician Bjarna Pálsson. The introductory comment was dated at the end of 1774.

Jón Pétursson's work is titled: "Stutt aagrip um iktsyki edur lidaveike, hvar inne hun er utmaalud með fleirstum sinum tegundum" ("A short description of arthritic inflammation, or a disease of the joints, including a description of most forms of the disease, in which you can find advice on how to prevent and treat arthritis") (Fig. 2). The book has 80 pages of small size, and is written in Icelandic [9]. The author focused on the two most common forms of arthritis, i.e., arthritis vaga and arthritis fixa. The term "arthritis vaga" means migratory, inflammation of the joints with vary-

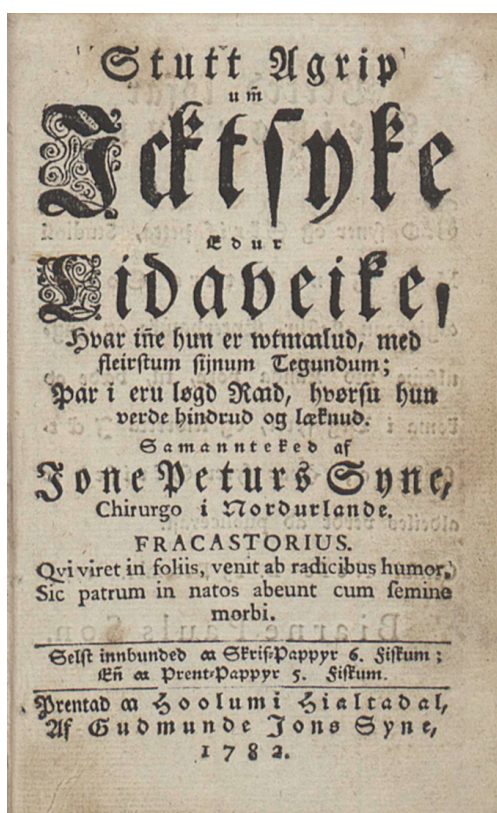


Figure 2. Title page of Jón Pétursson's work on arthritis titled: *A short description of arthritic inflammation, i.e. a disease of the joints*, containing a description of most forms of the disease, in which you can find advice on how to prevent and treat arthritis. The book was printed by Guðmund Jónssyn in Hólum í Hjaltadal in 1782. The entire work is available online on the website of the National Library of Iceland

ing degrees of intensity, and the term "arthritis fixa" means continuously constant or localized inflammation of the joints. The remaining two forms, i.e., scurvy arthritis (scurbutica) and arthritis venerea are only mentioned very briefly. Arthritis fixa is a description of non-inflammatory changes in joints that do not cause systemic symptoms or symptoms related to other internal organs. This form appears to be consistent with osteoarthritis. Arthritis vaga is a collective term for inflammation of the joints, primarily rheumatoid arthritis. According to Helg Jónsson and Jón Helgason, many elements of the description well characterized patients with rheumatoid arthritis. These include the frequent occurrence, chronic nature of the disease, bilateral involvement of the joints of the hands and feet, a damaging course leading to joint deformations, and symptoms of both local and systemic inflammation (e.g., fever with chills). In the book, Jón Pétursson distinguished acute gouty arthritis and also mentions a form of the disease in which inflammatory changes

occur in the sacral and lumbar region (lumbagiem rheumaticam inferiorum). The description was associated with reference to writings of Herman Boerhaave, Dutch physician (1668–1738). It is difficult to determine whether the description referred to ankylosing spondylitis. Two cases recognized by Jón Pétursson as particularly severe forms of arthritis vaga with deformations of limbs and face, and ulcerations of the hand joints undoubtedly were reports of systemic sclerosis [9].

Jón Pétursson's work is only available in Icelandic. The book discovered by Helga Jónsson a few decades ago, now has been digital-

ized and is available online. It is therefore hoped that this historical description of rheumatoid arthritis will be further investigated.

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CONFLICT OF INTEREST

None declared.

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References

1. Aceves-Avila FJ, Medina F, Fraga A. The antiquity of rheumatoid arthritis: a reappraisal. *J Rheumatol*. 2001; 28(4): 751–757, indexed in Pubmed: [11327245](#).
2. Kwiecinski J, Rothschild BM. No rheumatoid arthritis in ancient Egypt: a reappraisal. *Rheumatol Int*. 2016; 36(6): 891–895, doi: [10.1007/s00296-015-3405-z](#), indexed in Pubmed: [26650735](#).
3. Kucharz EJ. A new hypothetical factor responsible for occurrence and changes in incidence of rheumatoid arthritis in Europe in historical perspective. *Wiad Lek*. 2011; 64(4): 324, indexed in Pubmed: [22533161](#).
4. Tsoucalas G, Sgantzos M. Primary Asthenic Gout by Augustin-Jacob Landre-Beauvais in 1800: Is this the first description of Rheumatoid Arthritis? *Mediterr J Rheumatol*. 2017; 28(4): 223–226, doi: [10.31138/mjr.28.4.223](#), indexed in Pubmed: [32185289](#).
5. Jónsson H. Evidence of rheumatoid arthritis in an Icelandic textbook from 1782. *Sydsvenska medicinhistoriska sällskapets årsskrift. Supplementum*. 1992; 18: 29–35.
6. Jónsson H, Helgason J. Rheumatoid arthritis in an Icelandic textbook from 1782. *Scand J Rheumatol*. 1996; 25(3): 134–137, doi: [10.3109/03009749609080002](#), indexed in Pubmed: [8668954](#).
7. Altschuler EL. More on Petursson and rheumatoid arthritis. *Scand J Rheumatol*. 1998; 27(5): 387, doi: [10.1080/03009749850154474](#), indexed in Pubmed: [9808407](#).
8. Jónsson H, Helgason J. Reply. *Scand J Rheumatol*. 1998; 27: 387–388.
9. Bjarnason Ö. Jón Pétursson læknir og ritverk hans II [Doctor Jón Pétursson and his writings. Part I]. *Læknablaðið*. 2011; 2011(05): 311–313, doi: [10.17992/lbl2011.05.582](#).
10. Bjarnason Ö. Jón Pétursson læknir og ritverk hans II. *Læknablaðið*. 2011; 2011(05): 311–313 (English summary of the second part of the paper in entitled in different way as the Icelandic original, i.e. Dissemination of medical knowledge to the public in Iceland by a country doctor 1782-1834), doi: [10.17992/lbl2011.05.582](#).