CHAPTER 8

Japanese Medical Texts in Chinese on Kakké in the Tokugawa and Early Meiji Periods

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Introduction

The kakké disorder became a focus of medical interest in late Tokugawa and early Meiji Japan when the epidemic was observed in major cities and in the military and even began to affect the imperial household. The main symptoms of the disease included swelling or emaciation, loss of sensation and strength in the legs, sometimes followed by fatal heart failure. It was seen by Japanese elites and authorities as a serious threat to the healthy growth of the rising nation, as the main victims appeared to be able-bodied males, especially young men in the army and navy. The disorder provided a unique occasion for doctors of different medical traditions in Japan to prove the efficacy of their theories and therapeutics. Kampō doctors, versed in Chinese classical medical texts, were the first to observe and comment on the kakké phenomenon in modern Japan.

Kakké is now commonly considered to be the equivalent of beriberi, which is defined in biomedicine as “a nutritional disorder due to deficiency of vitamin B1 (thiamine) ... widespread in rice-eating communities in which the diet is based on polished rice, from which the thiamine-rich seed coat has been removed.” The symptoms, including the weakness of the legs and the ultimately fatal heart condition, are the result of nervous degeneration caused by the

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1 Kakké moved to the center of attention during the Seinan civil war of 1877. Many of the troops fell sick with this disease, with a rate of affliction in the army of 11 percent in 1876, climbing to 14 percent in 1877 and 31 percent in 1878. Beginning in April 1876, the Japanese empress suffered from this disease; in 1877 the emperor’s sister died from it. See Oberlander 2005, 15.

2 See Bay 2006.
deficiency of thiamine. This interpretation of kakkē was established and widely accepted only in the interwar period of the twentieth century, with the Nobel Prize in Medicine granted to the British chemist F. G. Hopkins and the Dutch physician C. Eijkman for their work leading to the discovery of vitamins. Eijkman’s contribution was specifically the successful framing of beriberi as a deficiency disease caused by the exclusive consumption of polished white rice. The disease was basically unknown to European scientists before Eijkman published the findings of his experiments with chickens fed on white rice in the Dutch East Indies in the last decades of the nineteenth century.

Kakkē 藥勞 is the Japanese pronunciation of the same Chinese word for an ailment described in early Chinese medical classics. The Chinese term, jiaqì 藥氣, literally meaning “leg qi,” highlighted the effects on the legs, along with qì, perverse “Wind,” as the supposed cause of the disease. Both the Chinese and Japanese terms are represented by the same Chinese characters. The term jiaqì appeared in early Chinese medical classics not later than the fourth century and was discussed as a major disease category in medical texts thereafter, with a high point from the seventh to the early twelfth centuries. Recent research cautions against the simplistic translation of jiaqì in classical Chinese medical texts, thus also of kakkē, as the beriberi defined by modern biomedicine. The history of jiaqì/kakkē has been made opaque and impenetrable because malnutrition, a modern biomedical construct of the first decades of the twentieth century, increasingly has reduced the etiological complexity of beriberi to single, context-free biochemical factors. The deficiency explanation of beriberi, moreover, has left many features of modern jiaqì/kakkē (and even of beriberi) unexplained. In this paper I will attempt to partially restore

the social and cultural context in which kampō doctors observed and understood the kakkē epidemic in modern Japan. I will do this by surveying explanations of the disorder in kampō medical texts of the eighteenth and early nineteenth centuries prior to the domination of biomedicine in Japanese public health around the turn of the century.

The kakkē epidemic observed in the late Tokugawa period was understood, analyzed, and debated with traditional kampō categories. In the 1853 compilation by Taki Motokata 多喜宗嘉 (also known as Tanba Genken 丹波元勲, 1795–1857), kakkē was given a comprehensive description based on old Chinese and kampō texts: as a disease caused by the intrusion of the Wind toxin (風毒)9 kakkē caused sluggishness in the legs, head, neck, or shoulder. Taki also described the “wet” and “dry” types of kakkē, the former characterized by weakness, the latter by emaciation and dryness of the skin and numbness in the lower abdomen. In keeping with classical Chinese explanations of the ailment, the toxin was said to enter the patient’s body by penetrating the lower limbs and moving up. When it reached the Heart, the patient would die.10 The death caused by the toxin’s finally attacking the Heart (心病 shénbìng) was the key feature of the clinical pattern of kakkē, justifying the great public attention paid to the growing epidemic.

At the beginning of the eighteenth century, Japanese doctors began to notice an increase in the incidence of kakkē, and between the 1710s and 1860s, at least twenty-eight kampō monographs on kakkē were published.11 Given that single-disease medical texts were rare in both classical Chinese and Japanese traditions, this feature is revealing. In his On Recipes to Treat Kakkē (Kakkē hōron 藥勞方論, 1748), Matsui Zaian 松井春院 (also known as Matsui Etsushū 松井雲齋 and Matsui Shūsuke 松井秀作) claimed that the prevalence of kakkē had been noticeable for some thirty years, affecting the nobility as well as the common people, many of whom died of the disease.12 Calling the ailment eyama 疾疫, Matsui appeared to consider the kakkē of the early eighteenth century a contagious epidemic comparable to those that had been caused by the warm factor and had been prevalent in China since the mid-seventeenth

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9 "Wind toxins” (風毒) in Chinese was already described as the cause of jiaqì in Randy's Recipes for Urgent Situations (Zhù hòu bì jiàng 養後備急方), one of the earliest Chinese medical classics, by Ge Hong (288–343), that mentioned the ailment. Both Suo Simiao 孫思邈 (ca. 528–609) and Ciao Yuanfang 潘元方 (active early seventh century) used the term to explain jiaqì in their medical writings.
10 Taki (1853) 1853, 124–126.
12 Matsui 1760.
century.\textsuperscript{13} Kakké was managed as a particular public health threat only in the late nineteenth century when Nakano Yasudaka (1892–1934), a leading kampō doctor, set up the first kampō hospital, the Hakusai byoin 博濟病院 (Hospital for General Relief), in 1878 to treat kakké patients. This hospital claimed a low mortality rate of 2 percent among these patients, competing favorably with the state kakké hospital that used both Kampo and biomedicine. For kampō doctors of this period, the kakké epidemic was an exceptional opportunity to redress the authority of kampō medicine, now being seriously challenged by biomedical doctors.\textsuperscript{14}

The discussions on the kakké epidemic by kampō doctors were based essentially on Chinese medical classics produced in the medieval period from the Sui to the Song dynasties, roughly from the seventh to twelfth centuries, when jiaoqi was a much-discussed ailment.\textsuperscript{15} Late imperial medical experts, especially those after the fourteenth century, seem to have lost interest in studying the disease. A compilation of therapeutic recipes attributed to a high Qing scholar-official from Guangdong, He Mengyao 何夢瑤 (1693–1754), remained in manuscript form until 1918 and did not offer any new explanations on the ailment.\textsuperscript{16} A "revival" of interest in the disease only came about in the late nineteenth and early twentieth centuries, when He's manuscript was finally published in Canton. A doctor from Guangdong, having worked in a Hong Kong charitable hospital, published a major new work in 1987 (see below). The relative lack of interest in jiaoqi in the eighteenth and earlier part of the nineteenth centuries in China contrasts intriguingly with the great importance attached to kakké by kampō doctors and the Japanese authorities of the same period, who produced a much richer literature on the disease, with new interpretations of classical theories. This general Chinese disregard for the jiaoqi disorder was probably one main reason why the American doctor Duane Simmons, of the China Imperial Maritime Customs, believed, in the 1880s, that the

beriberi/kakké then endemic in the Dutch East Indies and Japan did not exist in China.\textsuperscript{17} This essay will look at the discussions on kakké in kampō texts of the late Tokugawa and early Meiji period (ca. 1858–1883) that were influential not only in Japan but also read and even published in China.\textsuperscript{18} I will analyze the nature and etiological construction of the ailment by kampō authors, which were first based on traditional Chinese concepts of jiaoqi and later on additional, new anatomical knowledge introduced by Western experts, and I will show how such explanations made sense of the social and cultural problems generated by the urban lifestyle emerging in Japan. I will then briefly compare these explanations with late Qing Chinese medical texts on jiaoqi to highlight the particularities of the Japanese context of the modern kakké epidemic. I will try to show why, in the complex and rapidly changing political, social, and cultural environment of modern Asia where the kakké/jiaoqi epidemics were developing, it was difficult for doctors and patients in Japan and China to understand and accept a biochemical deficiency theory focusing on polished white rice as the sole cause.

\textbf{Japanese Kakké: An Elusive and Changing Disease}

One salient feature running through most of the kampō texts in the period under study was the claim that the kakké observed in Japan then was the same as the jiaoqi disorder described in Chinese Tang and Song medical classics. This justified the authors' use of these classics as basic references to check against popular recipes alleged to be effective therapeutics. Kampo doctors often stressed the "authenticity" of knowledge on kakké as compared with the adulterated information on diseases bearing the same name described in the late imperial period. In one of the earlier texts, Minamoto Yasunori's 源義盛's \textit{Recipies on Kakké (Kakké ruho 腹氣論方, 1763)}, the author wrote in the preface that "the discussion on kakké during the Tang/Song period is correct and standard; Yuan/Ming doctors' discussions are mostly irrelevant, and one does not take them seriously." The book \textit{Recipes Worth a Thousand Gold Pieces} \textsuperscript{20} by Sun Simiao 孫思邈 (681–751) is the most essential and standard. As for the book by

\textsuperscript{17} Simmons 1880, 42.

\textsuperscript{18} All the texts cited in this essay are kept in major medical libraries in China and recorded in their catalogs.

\textsuperscript{20} Reji qingjin yangfang 藥急千金要方 (ca. 650–653).
Wang Tao (王巢 [670–755]).

20 Medical Secrets from the Royal Library (Waitai mingsao fang 外臺秘要, ca. 752).

21 By Shenghuì 聖惠 he is referring to Recipes of the Imperial Grace during the Great Peace (Taipei sheng huì fang 太平聖惠方, 992). Shengjì 聖濟 refers to General Record of Imperial Charity (Shengjì zongfù 聖濟總敘, eleventh century).

22 Minamoto (1183) 1899, 44.

23 Okamoto 1892.

24 Maruyama 1863, 46.

25 Minamoto (1183) 1899, 10a.

26 Taki (1893) 1893, 120.

27 Inamura 1863, Juho, notes, 35 (explanatory notes), 35.

28 Inamura 1863, Juho, 2a.

29 Nakano and Asada (1893) 1893, 5.

had already characterized kakké as mutable in time and place: kakké in medieval times was not the same as that in the present, and that occurring in the north was different from that in the south. Similarly, Taki Motokata later stressed the mutable character of kakké by highlighting the possibility that, just as modern kakké was similar to Tang and Song jiaoqi and different from the jiaoqi of the Yuan and Ming periods, kakké in the future might very well differ from the disorder they observed in their time, so that taking measures that corresponded to the situation at the time was key to the successful treatment of the epidemic. 25 Inamura Ryo 今村了 (also known as Inamura Ryoan 今村了安, 1824–1890), court physician of the Tokugawa family and an authority on kakké, wrote in his seminal book on the disease published in 1861, Essentials on Kakké (Kakké kōron 開氣論), that experience suggested to him that ancient kakké might not be the same as the modern disease, which inspired him to modify old recipes to treat the modern. 27 As someone who lived in a rapidly changing era, he understandably stressed the mutability of all diseases: “All diseases under heaven are subject to change according to time and place. The changes are also infinite.” Therapeutics, therefore, had to be very flexible. 28

The mutability of kakké was further elaborated by Nakano Yasuaki (中野昌信) and Asada Sōhaku (浅田惟常, director of the Hospital for General Relief in 1893), who published the General Treatise on Kakké (Kakké gairon 開氣論) in 1879, where they developed the idea that kakké was an elusive disorder that changed with time and place. The reason for their compiling the book was that, despite the mentions of the disease in old Tang and Song classics and in old kappó texts such as Ishihe 音階 (tenth century) and Mairanpo 安楽方 (fourteenth century), the effectiveness of recipes and therapeutics depended on locality and customs, time and circumstances. The authors quoted old kappó classics to prove that “in our country, the disease had existed for a thousand years.” However, “in later times, when the four seas were in great turmoil with incessant warfare, we rarely heard of the disease again. In recent years, [this illness] has reemerged. The clinical patterns are similar to those described in Jin and Tang medical classics. The analyses are also similar. This is due to changing times and customs. We are in a different era.” 29 The authors seemed to imply that kakké was a disease of prosperity and peace. Kakké reappeared in peaceful and affluent Meiji Japan, real jiaoqi was endemic in
prosperous Tang China, and the disorder bearing the same name was likely to have been confused with other diseases in turbulent late imperial China. They went on to assert, under the section heading "On the Differences in Clinical Patterns between Old and Modern Kakke in This Nation," that modern kakke characterized by the fatal heart attack, as described in Han and Tang classics, was first observed in Japan only in the Horeki era (1753–1754). Moreover, the kakke in modern Japan was also characterized by its prevalence in the warmer season, from summer to autumn, and affected mostly young and able-bodied males, features that were not analyzed in medieval Chinese classics on jiaoqi.30

Imamura Ryō, in his later syncretic work on the disease, New Treatise on Kakke (Kakke shiron 酒気驚論, 1878), again summarized his views on the elusive nature of disease and the specificity of modern epidemics prevalent in urbanized and prosperous Meiji Japan. Diseases are complex; their changes are multiple. There are modern diseases that did not exist in the past, such as cholera. And there are modern diseases that became more prominent than in the past, such as kakke.31 For Imamura and other kanpō doctors of the mid-nineteenth century, cholera and kakke marked Japan’s modernity in significant ways: devastating mostly densely populated urban han and victimizing well-off and able-bodied young men in great numbers, the diseases seemed to be the by-products of development and prosperity. This idea was behind most of the discussions on the etiology of kakke by kanpō doctors.

The perception of a mutable kakke was articulated more and more clearly in major kanpō texts, a feature that was totally absent in contemporary Chinese medical texts. Kanpō writers since the early eighteenth century were aware that they were living in a rapidly changing time and experiencing “new” diseases with particular transmission patterns corresponding to new social contexts and mores. Such diseases were seen as necessary evils of an increasingly affluent, rapidly transforming, and urbanizing nation.

**Causes of Kakke: Intangible Wind and Damp Toxins**

Most kanpō writers maintained that the Wind toxin (šudoku 湿毒) was the main cause of kakke. The Chinese equivalent, fengdu, as in the title of the jiaoqi chapter in Sun Simiao’s classic, was used as the collective term to include all external pathogens (Cold, Heat, Wind, Dampness) emerging from the ground. As one’s legs were in constant and direct contact with the ground, they were

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30 Nakano and Arada (1879) 1993:5–6.
31 Imamura 1878, preface: 2a.
32 Sun (1937), June 7: "Fengdu jiaoqi" 138–140.
33 Tachibana 1875, prefacing, 1b.
34 Imamura 1876, June 2, 1a.
35 Imamura 1876, June 2, 1b–3b.
36 For a recent discussion on Wu Youxing and his impact, see Hanson 2001, chap. 5.
37 The concept was a relatively late invention, appearing in the late Song and especially in the Yuan period, and was most often used to explain childhood diseases such as smallpox. See Chang 2007.
raised the level of fetal toxin in the body. Tachibana warned that excessive sex would unnecessarily boost the Blood and ki of the body, further intensifying this innate fetal toxin and making the body extremely receptive to external pathogens. For him fetal toxin was also the cause of other difficult illnesses of the leisurely class such as heat exhaustion, madness, and shoulder pain. The term “Wind toxin” (fiudoku), for him, suggested not ordinary external pathogens as stated by Sun Simiao but the extraordinary swiftness of the onslaught of kakké on the young and strong, like “galloping horses.” The explanation for why fewer women got the disease was that menstruation regularly ridded the fetal toxin from their bodies.28

Later kampo doctors of the mid- and late nineteenth century, however, did not take up the fetal toxin explanation but provided new interpretations of the etiological principles of Tang classics. Taki, for example, in his 1853 text, elaborated on the external and internal causes developed by Song and Yuan doctors to explain why the well-to-do were more vulnerable. As the ailment was externally caused by dampness in the ground, Taki claimed that leisurely and immobile people, such as hardworking scholars who remained motionless for a long time on wet ground, and people who engaged in excessive sexual activities without covering their legs properly were the most vulnerable victims; whereas those who enjoyed rich foods and consumed excessive quantities of alcohol and dairy products would contract the disease internally because the intake of such hot and damp foods would provoke stagnation in the lower Burner (abdomen) and consequently swelling in the legs.29 Two decades later, Inamuraku further elaborated on a moralizing etiological discourse that tried to make sense of Japan’s modernization and urbanization. In his 1873 text, he noted the prevalence of the epidemic especially in metropolitan centers such as Edo, Kyoto, and Osaka. Agreeing with earlier doctors that the epidemic was the result of the hedonistic and decadent lifestyle of wealthy urbanites, he highlighted the internal cause to explain why the wealthy fell ill: excessive food and sex depleting the body of its primordial ki (yergy 元氣), making it vulnerable to external pathogens.30 Despite kampo doctors’ claim that their knowledge of kakké was based essentially on Tang and Song classics, Inamuraku’s interpretation shows that they also inherited from Jin and Yuan doctors the reconstructed “internal” causes of diseases, implying the greater personal and moral responsibility of the patient for contracting the disease.31

Nakano and Asada explicitly quoted Li Gao 李杲 (1180/81–1251/52), one of the four great Jin/Yuan doctors, in their etiological discussion: people who were accustomed to a rich diet of dairy products and alcohol (thus, northerners) would introduce excessive dampness into the body, causing kakké.32 Inamuraku pushed the “internal” cause argument further to highlight the moral aspect of kakké etiology. In modern Japan, he said, urban men in their prime indulging in excessive sex and a luxurious lifestyle were the most vulnerable to the disease, whereas women, children, and the elderly (those excluded from such a lifestyle) were rarely affected. He even provided some crude figures to prove his point: urban, well-to-do males made up 80 to 90 percent of kakké patients.33

It was also Inamuraku who spelled out most clearly, in his 1878 work, why kakké was a disease of “modernity.” In this book, he reinterpreted the notion of Wind toxin (the fiudoku of Sun Simiao) by evoking a new element, toxic air buried beneath urban ground: “wherever the land is lowly and damp, with dense populations and overwhelming human activities, where people do not even have enough space to stand on, the ki of the ground, not being able to dissipate freely, will cause this disease. Why then does it emerge only in the spring and summer? It is because [during this season] the ki of the ground is on the rise, and as it gets blocked [by human masses and activities on the ground], the obstructed steaming process produces a toxic ki.”34 Here, the hedonistic lifestyle of urbanites becomes a secondary cause of kakké. Inamuraku’s association of the toxic ki with coastal, low-lying, crowded urban settings showed his sensitivity to the changing, modern Japanese context of a “mutable” disease bearing an old name, though the introduction of the misama in Japan in the early nineteenth century by Dutch doctors probably helped to inspire this reinterpretation.35

28 Tachibana 1787, 28–29, 30–44. The menstruation theory was also used by late imperial Chinese doctors to explain why there were fewer female victims of leprosy.
29 Taki (1853) 1201–1212.
30 Inamuraku 1878, 32–33.
32 Nakano and Asada (1893) 1933. 6. For Li Gao, the main difference was between northern and southern diet and customs. The food and drink of northerners were so rich that there could be accumulation of fluid and heat internally that would slowly descend to the lower limbs, causing jiaoxue, whereas southerners would contract the same disease by external pathogens, mainly by the intrusion of external dampness and heat into their bodies.
33 Inamuraku 1878, 28–41. Inamuraku also stressed that roughly half of the victims (50–60 percent) were attacked by kakké while suffering from other diseases: complications from other diseases such as Wind Attack by Cold Damage, fever, distension of the abdomen, diarrhea, lower-abdomen pain with Mold toxin, and postnatal complications for women patients. See Inamuraku 1878, 28–41.
34 Inamuraku 1878, 38.
35 Anthousis F. Beaulieu (1822–1896) was one such Dutch doctor. Samori Giljchro considered misama a kind of “mold” (bazuka), a concept close to Inamuraku’s.
Clinical Patterns

Compared with the changing concepts of the origin and cause of kakkei, the clinical patterns of the disorder remained relatively stable or unchanged. All kanpō authors referred to Sun Simiao's classic on the main patterns: At the beginning, the legs are weak and cannot move easily. Or before anything else, the head, neck, arms, and shoulder suffer; or the heart and abdomen feel sluggish. One may have nausea seeing food and hate the smell of food. There is perhaps diarrhea or constipation and difficulty in urination, unusual throbbing of the heart, the fear of light, or lethargy, forgetfulness, delirium, fever, and headache, coldness and cramping of the body, the ankles may become swollen, legs may feel numb ... numbness also of the lower abdomen. The final and fatal phase of jinuqi was sudden death caused by the malignant qi (shōshin) attacking the Heart. In his 1861 text, Imamura called for great attentiveness to the slightest symptoms, as they were difficult to detect, especially changes in breathing and urination. Shortness of breath and reddish urine reflected a serious accumulation of internal toxin, whereas unprovoked perspiration and vomiting might indicate the imminent of sudden death.

Using new Western anatomical concepts, Imamura later revised his descriptions of kakkei. After having worked with biomedical doctors in the state kakkei hospital, he put aside the Damp-toxin idea and elaborated on the internal "blockage" narrative using Western anatomical categories in his New Treatise on Kakkei of 1878. For him, the toxin emerging from the ground entered the body first through the legs and then penetrated into liquid blood in blood vessels (i.e., not Blood in the traditional Blood-qi duo but the physical, liquid blood of Western anatomy). He also used new anatomical concepts to describe the process of toxin penetration; it first penetrated the skin, then the nerves, the muscles, and, finally and fatally, the viscera. When the toxin entered the heart and the lung via nerve number five, he explained, the case became critical and often terminal. For him, this explained why the fundamental clinical patterns of kakkei consisted of urinary and breathing abnormalities. The former was a manifestation of the toxin "blocking blood vessels," while the latter was the symptom of the toxin entering the brain and consequently interfering with the normal contraction of the heart, leading to lung dysfunction, as the heart and lungs were interdependent. The fatal and final shōshin symptom of kakkei was, therefore, not "heart attack" but "suffocation" as a result of lung failure. New Western anatomical knowledge, instead of being an effective tool for unseating the explanations and analyses in the kanpō classics, provided Imamura, on the contrary, with a new and useful body map with which to consolidate, using a new, modernized vocabulary, the old description of the disease's clinical pattern as established in the classics.

Therapeutics

Kanpō doctors reiterated the difficulty of treating kakkei because of the deadliness of the toxin. All repeated Sun Simiao's guiding principle that the art of the cure was in maintaining the delicate balance between purging and replenishment, as the illness was caused by both the internal accumulation of toxic matters, blocking the circulation of qi, and the depletion of primordial qi. Imamura Ryo elaborated on the principle of the dual treatment of "replenish and purge" (hosha 補瀉). As "purging accelerated death, and replenishment shortened life," the art was to achieve the perfect balance in the implementation of the two methods. Imamura reminded readers that Chinese medieval classics prioritized purging over replenishment, as most patients died of severe internal stagnation of the toxic qi, while purgatives rarely killed. Kanpō doctors nonetheless had varied views on the method for purging and regulating qi. Earlier doctors such as Minamoto Yasunori, in keeping with the conviction that the disease had been best understood by Sun Simiao, stressed the importance of acupuncture as an essential treatment, especially at the beginning of illness when the patient felt weakness in the legs. He recommended supplementing acupuncture with life-nurturing exercise, dōsō 動導. Bathing of the legs and applying hot pads to the feet were considered harmful and were generally prohibited.
Most *kampô* doctors in the nineteenth century, however, simply summarized the acupuncture principles of Sun Simiao and Wang Tao without further comment, but they elaborated greatly on drug therapy, as did mainstream doctors in late imperial China. Imamura considered acupuncture "not a method to deal with [the disease’s] fundamental causes" but still useful for the removal of obstruction. He stressed the superiority of *kampô* herbal formulas in treating the Japanese body, especially when compared with Western therapeutics, which he considered to be too abrasive. *Kampô* recipes, he explained, offered patients with made-to-order, composite herbal prescriptions that could target every single symptom of the complicated *kakké* clinical pattern like a well-organized regiment. Here he highlighted the adaptability of therapeutics for patients of different localities and customs. More important still, following the moralizing etiology of *kakké*, *kampô* doctors prescribed strict bodily discipline as a preventive measure and as a cure, strongly advising against rich diets and overindulgence in sex and alcohol. Imamura recommended unsalted and simple foods, regulated sex, and the control of extreme emotions. Taki Motozaka basically advised against alcohol and all meats and vegetables with strong tastes and recommended certain cereals, milk, and chestnuts. When restraining from excessive sex, one must also have moderate exercise, especially walking. Idleness and lying in bed all the time were considered a dangerous lifestyle.

Despite *kampô* doctors' receptiveness to Western missmatics, most seemed skeptical of Western doctors' advice to remove patients from the place where they had contracted the disease (tenchi 場所, "to change location"). The American doctor Duane Simmons, working in Yokohama in the late-nineteenth century, was a typical supporter of such a treatment. He suggested in 1880, "An early removal of the patient beyond the influence of the poison is the best means of treatment," given "no drug has been discovered possessing specific properties in this disease." This method had apparently become one of the most common practices used by Western doctors to treat *kakké* patients in Japan as well as in other parts of colonized Asia, but it was considered with great skepticism by *kampô* doctors. Toyama Chinkichi 逢山春吉 pointed out in 1915 that moving patients to the seaside and low ground, much recommended by Western doctors, would not do any good but would only accelerate the fatal *shōshin* because these places were too damp. He suggested moving patients to high and dry ground if relocation was done at all. The fear of cold damp *ki* and of the toxin buried under city ground, main causes of the disease in classical Chinese and *kampô* medicine, was behind reservations about moving patients from the place of disease contraction.

### Kakké as a Distinct Disease of the Modern Japanese Nation

*Kampô* specialists on *kakké* of the eighteenth and nineteenth centuries persistently saw the disease as specific to Japan at that time, a Japan that was characterized by new wealth and accompanying moral corruption. Shortly before the Meiji era, *kampô* doctors were already seeing *kakké* as a unique, new "old" disease in Japan. Asada Sōhaku, in the postface adorning Imamura’s 1861 text, explained the particularity of Japanese *kakké*: "the name [of the ailment] is the same throughout the ages, yet the ailment itself is different; the Japanese and the Chinese descriptions of the clinical patterns are the same and yet the causes are different." Such a perception influenced even some nineteenth-century Western medical specialists who were beginning to take closer looks at what they considered a new disease unknown in the West. In Simmons’s 1880 report on the disease for the China Imperial Maritime Customs, he regretted that the name *kakké* was used by all the foreign physicians observing the disease in Japan, "as it is likely to lead to confusion by implying that it is a distinct malady; whereas its identity with beriberi has never been really disputed by anyone but Dr Hoffman.

Actually, not only Hoffman but also the Dutch doctor Pompe van Meerdevert (1829–1908), teacher of Sasaki Toyo (1838–1918) of the government *kakké* hospital, described the Japanese "variation" of beriberi. Simmons himself was contradictory about the specificity of the Japanese *kakké* in relation to beriberi; he conceded that Western doctors, who first observed beriberi in India, understood the disease as being provoked by anemia or malaria and thus treated patients with iron supplements and quinine, killing many Japanese *kakké* patients in the process. He admitted that Japanese doctors’ treatment by

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54. Imamura 1861, June 2, 332.
55. Imamura 1876, 88.
56. Imamura 1861, June 2, 8–9 and the section on “food restrictions” (98–100). Nakano and Asada ([1874] 1999, *Kampô*, 2) advised patients to strictly respect taboos and life-curing principles; see also Taki (1853) 1892, 143–144.
57. Simmons 1886, 75–76.
58. The immediate removal of patients from the place where they contracted beriberi was also common practice in colonies such as Hong Kong and the Malay states.
59. Toyama 1915, 6.
60. Imamura 1861, postface.
61. Simmons 1880, 39. According to Simmons, the said Dr Hoffman was misled by his ignorance of Indian beriberi. Simmons believed that beriberi was the same as *shōshin*.
"rapid depletion and evacuation of the enormous collections of serous fluid," on the contrary, saved a lot of lives.\textsuperscript{65} Kanpō etiology and therapeutics of \textit{kakke} obviously enjoyed considerable success and influence in Japan in the late nineteenth century, drawing attention even from foreign biomedical doctors and contributing to the perception of \textit{kakke} as a distinctly Japanese disease.

The claim that \textit{kakke} was a "national" disease of modern Japan can also be appreciated in the sense that the Japanese were among the first to notice the emergence of a new epidemic that needed to be studied seriously. The outbreak of beriberi in the Dutch East Indies was observed and researched by Western biomedical experts only in the last decades of the nineteenth century.\textsuperscript{64} The modern \textit{jiqoi} epidemic in China, on the other hand, remained largely obscure until the early twentieth century. As late as 1905, the government bacteriologist in Hong Kong, like Simmons two decades earlier, reported, "There is no strong proof that the disease is endemic either in Hong Kong or in China as a whole."\textsuperscript{65} The reality was that the \textit{jiqoi} illness had been observed and managed only by Chinese doctors in Chinese institutions up to this point. Like kanpō writers, Chinese doctors were seeing the reemerging \textit{jiqoi} endemic as a new, modern phenomenon in a changing world order. But their articulation of the "modern" character of the \textit{jiqoi} phenomenon was very different from that of kanpō writers. In the rest of this essay, I will briefly describe the explanations for the nineteenth-century \textit{jiqoi} epidemics in southern China that were given in Chinese medical texts, for the purpose of contrasting them with those given in the kanpō texts.

\textit{Jiqoi} in Nineteenth-Century Chinese Medical Texts

As already mentioned, \textit{jiqoi} was not a much-discussed disease in the late imperial period until the last two to three decades of the Qing dynasty. The only book worth mentioning is \textit{Secret \textit{Jiqoi} Recipes} (\textit{Jiqoi mifang} 腳氣祕方), attributed to the famous Cantonese scholar-physician He Mengyao 何夢瑤 (1693–1754, \textit{jinshi} 1730). This text was said to be in manuscript form and was not published until 1918. Unlike contemporary kanpō texts, this book, citing principles and recipes from medical classics on the disease, did not discuss \textit{jiqoi} in any contemporary social context. But similar to kanpō texts, and unlike most of the post-Song descriptions of \textit{jiqoi}, the treatise emphasized the terminal

\textsuperscript{65} Simmons 1888a, 50.
\textsuperscript{64} Carpenter 2000, chap. 2; Heilbroner 1992, 61–65.
\textsuperscript{65} Hunter 1905, 120.
every year being transported back to Canton from Southeast Asia, Latin America, and Hong Kong. Zeng’s book could perhaps be considered part of a growing popular and local medical literature that seemed to be flourishing in China at that time; the yanfang (recipes proven by experience) tradition, as opposed to “classical” recipes, literature on diseases observed to be regional endemic in the nineteenth century, such as jiaoqi, plague, cholera, diphtheria, levers, swollen-ness, and so on in the Guangdong region. These yanfang and more formal medical texts on new diseases seemed to inform each other from the late nineteenth century onward, gradually forming a corpus of local medical texts that reinforced the idea that endemic diseases could be treated more efficiently by local doctors and remedies, an idea that was also promoted by Tung Wah doctors for kakké. Just as kakké was thought to be a national disease of modern Japan, jiaoqi in China was often described as typically “southern.” It is interesting to note that British doctors in Hong Kong, including Patrick Manson and James Cantle of the tropical medicine school, were also informed by Chinese experts on such local diseases often unknown to Western doctors. They admitted that their first contact with beriberi patients was in the Alice Memorial Hospital, established in 1887 in Hong Kong as the first privately funded charitable Western hospital treating Chinese. The report on their first observations shows that they were essentially instructed by local Chinese doctors, possibly including

68 The Tung Wah Hospital partnered with the major charitable Chinese medical hospital in Canton, the Fangbian Hospital, to organize the repatriation of jiaoqi patients. At first, patients were transported to Canton via the West River; later in the twentieth century, they traveled on the Canton–Kowloon train. The Tung Wah Hospital, as a major charitable organization for Hong Kong and overseas Chinese since 1878, paid the Fangbian Hospital for accommodating patients repatriated by the Tung Wah. See Leong 2000.

69 Many of these popular works were compiled and published by herbal stores in Canton, and some of these works had several editions. I have in hand an undated and anonymous text also called jiaoqi chuanyan, a short work that contains popular recipes. One very popular work, called Record to Provide Relief to the Populace (ji sheng lu แก้สงคราม), included short texts and recipes on plague, jiaoqi, cholera, levers, swollenness and a prayer to ask for rain. Complete Records of the Xingyong Charitable Hall (Xingyong quanlun 喜榮全論), a long manuscript on various “local” diseases published in 1910 by a Daoist charitable hall in Canton, contains pages of recipes on jiaoqi.

70 It is interesting to note that the recently published series of Cantonese medical texts of the late Qing and early Republican period reveal an emerging medicine with “Cantonese” characteristics. Many of the texts are on endemic diseases of the period. See Zheng 2009.

71 This point was emphasized in the rendition of Zeng’s book by the Guangdong military in 1904.

Zeng, who was then employed as a doctor and teacher in the Tung Wah Hospital, on the clinical pattern, causes, and therapeutics of the disease.

The revival of interest in jiaoqi in China was also a consequence of a growing epidemic in Shanghai, a place that Chinese doctors described as an ideal breeding ground for jiaoqi because of its low topography and muggy climate. Shanghai was thus similar to those insalubrious Japanese coastal cities where kakké was rampant. Ding Fubao 丁福保 (1874–1952), well versed in traditional medicine but also a major translator of Japanese medical texts into Chinese since 1908, published the first compilation of classical texts on jiaoqi with translated Japanese texts on kakké in 1910. Translated passages revealed competing biomedical theories on beriberi: toxins in the form of mold or in fish or spoiled foods, contagion, special lifestyles of men, immobility, mass, low standard of living, shoes that don’t fit, and so on. Toxin in rice as a result of bad storage rather than something intrinsic was also mentioned as a possible cause but was not given as much weight as mass. White rice as a cause was viewed with skepticism. Ding himself considered toxin in spoiled rice an important cause, with bad local environment (shuitu 水土, “water/earth”) a secondary cause. He was typically eclectic in his therapeutic recommendations: observing life-nurturing principles, restraint from sexual activity, avoidance of violent exercise, attention to food, transferring the patient to higher ground, and bloodletting to release the pressure on the heart. While Ding introduced Japanese and biomedical explanations of the disease in his book, his contemporary, a much-respected traditional practitioner, Zhou Xiaocong 周小樸 (1876–1942), who practiced in Shanghai until 1911, provided us with concrete medical cases of the time. These cases illustrate the rapid urbanization of Shanghai as the background of the growing epidemic, as many of his patients were immigrants to Shanghai from other parts of China. Uninformed immigrants, especially young men seeking opportunities in this big city, were described as particularly vulnerable because they were unaccustomed to the unhealthy environment and unfamiliar with the symptoms and treatment when they contracted jiaoqi. Like Zeng, he recommended returning to their native places as one of the most reliable treatments. Modern Chinese medical writers did not seem to question the stability of the old jiaoqi ailment and attributed more importance to external pathogens as the key cause of the disease, as did Tang classics. However, even though they did not formulate any
notion of the “mutability” of jiaoqi as did kankō authors, they had little problem situating the epidemic in the modern context.

Conclusion

While both kankō authors and traditional Chinese doctors of the period understood and explained kakké and jiaoqi with the same classical vocabulary, the ailment was perceived as a modern phenomenon. Kankō doctors increasingly depicted kakké as a distinct disease of modern, urbanized, and affluent Japan. It was, above all, a “changing” disease. Chinese doctors continued to view jiaoqi as the disease with the same name in the medieval period and highlighted its regional nature, yet they placed it in a totally modern context of global migration: the disease was observed to affect mainly immigrants in overseas tropical regions or in major southern cities in China. Japanese and Chinese doctors elaborated on both the external and the internal causes developed by medieval and Jin and Yuan masters to explain the respective patterns of the epidemics they were observing, and they similarly concluded that the disease affected mostly young urban males of respectable social status or men with rich diets or undisciplined lifestyles. While removal of patients to high and dry ground far from city centers was a modern kankō therapeutic option, Chinese doctors recommended repatriation to the patient’s native place, both methods articulating clearly two different experiences and readings of the unsettled, globalizing modern world.

Kankō and Chinese doctors made sense of the emerging world of the nineteenth century by viewing kakké and jiaoqi as a disease category that was multicausal, as taught by the old classics, but also socially, regionally, or even ethnically bounded, which sometimes explained its changeability and how it affected mostly an up-and-coming class of respectable young men entering a competitive, alienating, and globalizing world of opportunities and risks. For a long time it was considered a disease of the privileged, not of the deprived, as implied in classical texts. Western biomedical scientists, on the other hand, observed Asian beriberi patients among laborers and coolies in plantations, prisons, asylums, camps, orphanages, and schools in the colonies. They experimented with chicken, pigeons, and other animals, which provided them with data that inspired the construction of the nutrient deficiency theory focusing on a quintessentially Asian staple food—rice—leading ultimately to the discovery and study of vitamins, the cutting-edge biochemical research at the turn of the twentieth century. Viewing beriberi as a new, universal, specific, and unicausal disease victimizing impoverished and ignorant Asian populations with a deficient diet consisting only of white rice was the way that nineteenth-century Western biomedical experts made sense of colonized Asia. This was completely different from kankō and Chinese doctors’ worldview, which was based on their everyday experience and their knowledge of classical texts, which retained their explanatory power well into the twentieth century. It is thus understandable that the theory of malnutrition caused by a diet of white rice took a long time to have any real, albeit limited impact in Asia.  

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CHAPTER 8

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