I. Introduction

This paper will examine the route and diffusion of cholera in East Asia in the nineteenth century. It will focus on the emergence of the "Disease of Intermediary Trade" in Korea, China and Japan.

Most epidemic diseases at this time were regarded as "trade diseases" transmitted along traditional trade routes. On the whole, epidemic diseases in East Asia were assumed to be prevalent first in China and then transmitted to Japan by way of Korea. They were transmitted along traditional tributary trade paths. However, it is difficult to confirm the exact route due to the ambiguity of symptoms and the long incubation period of epidemic diseases. It is also difficult to find out the reverse route traveled from Japan to Korea and then to China.

Cholera epidemics broke out in Calcutta, India in 1817. However, unlike other epidemic diseases, cholera’s distinct symptoms, high mortality, and frequent outbreaks make it facile to trace the route of the transmission of cholera in East Asia. In this way, cholera represented a mutual exchange in terms of the transmission of epidemic diseases. This type of epidemic disease was new and epochal. I thus name this kind of epidemic disease as the "Disease of Intermediary Trade". The Disease of Intermediary Trade reflected the substance of the intermediary trade and the original regional order in East Asia. It was different from the "Diseases of Tributary Trade" like smallpox, plague, scarlet fever, etc.

The debate on the infection route of cholera has been very controversial because most of the documents on cholera in the 19th century were based on words of mouth such as “It was reported that many people died in certain areas from the outbreak of an epidemic.” They weren’t based on actual surveys. In addition, the lack of time series analysis including years, lunar calendars, and solar calendars created more confusion to the debate. Thus, this study intends to reveal how cholera, a new epidemic, affected East Asia especially in terms of its route of infection and international trade in the 19th century. Through such findings, it will also look into how cholera came to represent
new order in East Asia.

II. The route of infection of cholera and its spread in East Asia

In China, cholera is called *Huoluan* which means an acute diarrhea, often quoted in ancient Chinese medical books. Bangu (AD 32-92) wrote in *Hanshu*, “In the hot summer, it is common that people have *Huoluan* that accompanies diarrhea and emesis.”¹ In *Huangdi Neijing·Suwen* also says, “In a bad year for crops when the yield fails to meet demands, people suffer from *Huoluan*, having diarrhea when they manage to have meals.”² Besides, *Shanghanlun*, *Huainanwang Shangshu* and *Waidabiyo* refer to *Huoluan*.

Due to similar lesions such as emesis and diarrhea, westerners insisted that cholera was a disease native to China.³ Even Chinese continued to call cholera *Huoluan*. Yet, cholera which appeared in the 19th century was different from the epidemic of *Huoluan*. Its cause is the virus called *Vibrio cholerae*. Considering its cause and the infection route, it is hard to say that cholera is a disease native to China. Since the Chinese used different names for cholera including *Huoluan*, we need to pay attention to the route and the time of infection in order to distinguish cholera from *Huoluan* that had existed before the 19th century.

Cholera, which broke out in Calcutta of India in 1817, had widely spread throughout East and West. In 1820 it arrived at Java Island of Indonesia via the Strait of Malacca in May of 1819. In 1821, it reached Borneo of Indonesia. The most important documents about how cholera spread to China are both *Yixueshizaiyi* (Medicine is very easy, 1808) by Chen Xiuyuan (1753-1823) and *Yilingaicuo* (Correction of Errors from Medical Literature, 1830) by Wang Qingren (1768-1831). In *Yixueshizaiyi* says, “Not a few people died from *Huoluan*. In most cases, it started in June and peaked in between July and August. After September, it abated that most patients got cured easily.”⁴ In

¹ *Hanshu Liezhuan* vol. 64 no. 1.
² *Huangdi Neijing·Suwen* vol. 26 Qijiao Biandalun No. 69.
⁴ “Huolanshi(The poem of cholera)”, *Yixueshizaiyi* (Medicine is very easy) vol.3; (Lin Huiguang ed., *ChenXiuyuan Yixuequanshu* (Chen Xiuyuan’s Medical Collection) (Beijing:
Yilingaicuo says, “in the year of Xinsi (1821), the first year of Emperor Daoguang, *Wendu*, another name for cholera, was prevailing. There were many people suffering from emesis, diarrhea and distorting muscles in some provinces. In the capital of Beijing, it was worse that there were more patients than in any other areas. For poor people who couldn’t afford burial, the government gave away coffins for free. It cost hundreds of thousands of dollars just for a month.” Based on such literature, some argue that cholera started in Fujian in 1820 and spread to Beijing in 1821. Others maintain that it started in Guangdong in 1820 and spread to Ningbo and finally arrived in Beijing in 1821. Although those two claims differ in specific routes, it is noticeable that both agreed on that cholera spread from the South toward the North during the Qing Dynasty between 1820 and the summer of 1821. After it circulated to the eastern part of Qing, nothing had been in the way of cholera until it arrived at the northwestern part of Joseon. As a matter of fact, the overland route was an official trade route between Joseon and Qing.

At first, cholera was called *Goejil*, or “a mysterious disease” in Joseon because its causes were completely a mystery at that time. The first report of cholera was made by Kim I-gyo, governor of Pyeongyang, in September 9, 1821 (August 13, 1821 of the lunar calendar, 21st year of King Sunjo’s reign) which fell in the same period as its first Pandemic (1817-1824). He reported that a mysterious disease broke out in Pyeongyang at the end of August in 1821 that his people were sick either with *Gwangyeok*, a disease that made it hard for its patients to vomit or urinate or a mysterious disease accompanied by diarrhea and emesis. He wrote that a thousand people died just in ten days and no medicine worked. On September 18, nine days after his reports, another report was made that the death toll amounted to hundreds of thousands in Seoul and

8 Joseon Wangjo Sillok (Annals of the Joseon Dynasty), (August 13, 1821 of the lunar calendar, 21st year of King Sunjo’s reign).
other locals, with cholera spreading throughout the country.\(^9\)

In 1821, cholera was widespread from August to November in Joseon where it appeared to circulate from the north to the south. In 1821, it was reported that cholera spread throughout the nation saying Pyeongan Province (September 9), Pyeongan and Hwanghae Provinces (September 10), Seoul (September 11), the whole county (September 18), and the whole nation (November 12). In the next year of 1822, cholera broke out again in Seoul (June 17), Jeolla Province (August 19), Hwanghae Province (August 27), Chungcheong and Jeolla Provinces (September 7), Hamgyeong Province (September 16), and Jeju Island (November 13). It lasted from spring till fall throughout the country.\(^10\)

In *Joseon Wangjo Sillok* (Annals of the Joseon Dynasty), the infection route of cholera was written in detail. It says that cholera arrived at Seoul via Pyeongan Province in Joseon, passing through the eastern part of China including Jiezhou, Liaozhou, and the southern Shanhaiguan.\(^11\) In other words, cholera was spread to Joseon by land route from the northeastern China to the northwestern Joseon.

When cholera first broke out in Joseon, it was called *Goejil*, “a mysterious disease,” meaning literally it was a mystery. Or it was named *Yeojil* or *Yunjil*, meaning an infectious disease. With the influence of China, Korean doctors called cholera *Seoseupgwangnan* or *Yunjeunggwangnan*, both of which were varieties of *Huoluan*. The first time when the name of cholera was used officially was in July of 1895 when laws regarding cholera were reorganized such as “Prevention rules on *Hoyeolja*”, “Disinfection rules on *Hoyeolja*”, “Prevention and disinfection rules on *Hoyeolja*”. The term *Hoyeolja*, transliterating cholera and meaning “a disease ailing like bitten by a tiger,” was originated in Japan. As the prevention of cholera was an international issue, *Hoyeolja* was often mentioned in diplomatic documents between Joseon and Japan before 1895.

There is no accurate statistics about the death toll of cholera in Joseon in the first prevalence period. It was roughly estimated at tens of thousands or hundreds of thousands according to regions in historical literature. Still, it was highly likely that the number was minimized because the effect of preventative measures taken had direct influence on local governors’ performance evaluation. According to *Jeungbo Munheon*

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9 *Joseon Wangjo Sillok*, (August 22, 1821 of the lunar calendar, 21st year of King Sunjo’s reign).

10 *Joseon Wangjo Sillok*, (April 28, 1822 of the lunar calendar, 22nd year of King Sunjo’s reign); *Joseon Wangjo Sillok*, (July 3, 1822); *Joseon Wangjo Sillok*, (July 11, 1822); *Joseon Wangjo Sillok*, (July 22, 1822); *Joseon Wangjo Sillok*, (August 2, 1822); *Joseon Wangjo Sillok*, (October 19, 1822).

11 *Joseon Wangjo Sillok*, (August 2, 1821); *Joseon Wangjo Sillok*, (August 17, 1821).
Bigo (Supplementing the Records of Civilization and Institutions, 1908), the population of Joseon shrank by 1 million from 7.6 million to 6.6 million between 1807 and 1835. While hunger, wars, and other epidemics played significant roles in the reduction, cholera was blamed the most for the drastic decrease in population.\textsuperscript{12} Therefore, it is estimated that at least tens of thousands and at most hundreds of thousands died. Joseon Wangjo Sillok said, “No more than one or two survived out of ten patients” in August 22, 1821 of the lunar calendar (21st year of Sunjo’s reign), from which it can be inferred that the fatality rate was almost 80 to 90 percent. Even though such figures were a little exaggerated, it is still undeniable that the fatality rate was very high. Moreover, high-ranking government officials were no exception to cholera victims as well as ordinary citizens.\textsuperscript{13}

The second prevalence of cholera in Joseon was between 1859 and 1860. During that time, around 500,000 died from cholera. In 1894 to 1895, hundreds of thousands died.\textsuperscript{14} Hwang Hyeon (1855-1910) pointed out the gravity of cholera in his essay, Maecheonyarok (Hwang Hyeon’s Non-official Record). He wrote that millions of people died from cholera from May till July in 1894 when cholera was more virulent than in 1860, the year of Gyeongsin under the reign of Cheoljong.\textsuperscript{15} In addition, the infection route cholera in 1895 was reaffirmed in Maecheonyarok.

The epidemic broke out in Uiju and spread via Pyeongan Province and Hwanghae Province to Seoul just in ten days, followed by many deaths. Its symptoms included Gwangyeok (unable to vomit and urinate), emesis, and diarrhea. Often, the victims died the next day of their development. Koreans called it a mysterious disease while westerners called it cholera. Quarantine offices were installed in Seoul. Citizens were advised not to eat cucumbers.\textsuperscript{16}


\textsuperscript{13} Joseon Wangjo Sillok, (August 22, 1821).


\textsuperscript{15} Hwang Hyeon, Maecheonyak (Hwang Hyeon’s Non-official Record) vol.1, No. 1(Before 1894); Yim Hyeong-taek et al. trans., Yeokju Maecheonyak (Translating and annotating Hwang Hyeon’s Non-official Record) No. 1, (Seoul: Munhak-gwa Jiseongsa, 2005): 234.

\textsuperscript{16} Hwang Hyeon, Maecheonyak vol.2, (1895, 32nd year of King Gojong’s reign); Yim Hyeong-taek et al. trans., Yeokju Maecheonyak No. 1, (Seoul: Munhak-gwa Jiseongsa, 2005):
In 1821 when cholera first broke out, its infection route was from the northeastern China via Pyeongan Province and Hwanghae Province to Seoul (formerly known as Haneong). It continued to spread from Seoul to southern parts of the country, and eventually throughout the nation. In 1895, cholera spread throughout the nation, following the typical route from Uiju, a gateway to Joseon from Qing, via Pyeongan Province and Hwanghae Province to Seoul. The 1895 cholera started among Japanese troops in Manchuria and spread to Joseon on their way to returning to Japan.  

Cholera was disseminated to Nagasaki, Japan in the mid September of 1822. It is controversial how cholera was brought in to Japan. Some argues that it came directly to Nagasaki via the Strait of Java. Others claim that it was though Joseon to Tsushima Island and to Shimonoseki in Japan. Still others insist that how cholera was spread to Japan is unclear. They tend to leave the above two arguments open to possibility. Either way, it is true that the first prevalence of cholera (1821-1822) started in Nagasaki. Japanese called cholera “Korori ( Корори )” named after its original sounds. This shows that Japanese recognized cholera as a new disease not as a disease native to Japan or East Asia.

Little is known about the death toll in Japan in the first prevalence period of cholera. At that time, cholera was confined to Midwest of Japan including Nagasaki, Osaka, and Kyoto but did not spread to eastern parts of the nation including Edo. It is reckoned that the second prevalence of cholera resulted in the worst situation ever in the history of Japan. At least, hundreds of thousands died and the circumstances would have been similar to the first cholera prevalence in Joseon. The third prevalence was in 1862 and the fourth was in 1877. Since 1877 when the Health Bureau was established within the Japanese government, the statistics on the death toll of cholera had been collected.

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According to the statistics, not a year had passed without cholera from 1877 until the end of 19th century. It was twice when the death toll was more than 100,000. The fifth prevalence was in 1879 when the death toll was 105,786 out of the total 162,637 patients. The fatality rate was 64.0 percent. The sixth prevalence was in 1886 when 108,405 died out of 155,923 patients, making the fatality rate 69.5 percent. Since the 20th century, the death toll was reduced to less than thousands on average in Japan. Yet, the fatality rate was high enough to range from 56 to 87 percent.\textsuperscript{21}

In fact, it is still open to debate how cholera was spread to Japan in the first prevalence period. From April 12 to 15 in 1822, Jan Cock Blomhoff (1779-1853), the head of the Dutch Commercial House in Nagasaki, went to Edo with Turing, a medical officer. They met with Katsuraga Wahoshu (1797-1844), Otsuki Kentaku (1757-1827), and Sasaki Tsutaku, who told that cholera was widespread twice in 1820 and 1821 in Jakarta of Java Island and warned that cholera would break out in Japan, too. Otsuki remarked, “In my opinion, cholera came from Jakarta, contrary to the common belief that it was from Joseon. Ordinary citizens can think of only Joseon when it came to foreign countries. Therefore, some heard that cholera occurred overseas and then easily assume it was Joseon.” Hujikawa denied the theory of Joseon-Tsushima route and instead maintained the Jakarta-Nagasaki route, quoting what Otsuki said.\textsuperscript{22} In reverse, it is also true that most Japanese believed the Joseon-Nagasaki route while Otsuki was inclined to the information from the Dutch, thereby supporting the Jakarta-Nagasaki route.

With quoting a lot of references, Hujikawa, who insisted that cholera was spread from Jakarta to Nagasaki, argues that cholera started in Nagasaki in August (July in the lunar calendar) and spread to Choshu, Shimonoseki, and Osaka. He said that 583 died in Choshuaki (the current Yamaguchi) from September 28, 1822 (August 14 in the lunar calendar) to October 9, 1822 (August 25 in the lunar calendar) and that 200 to 300 people died every night in Osaka on November 9 (September 26 in the lunar calendar).\textsuperscript{23}

That is, cholera was prevalent in Nagasaki as early as mid-August in 1822 according to Hujikawa. On the other hand, The Diary of Dutch Commercial House in Nagasaki says that the first report on cholera was November 29 in 1822 (October 16 in the lunar calendar). Therefore, there is a time difference of three months between those two.

\textsuperscript{21} Koseisho Imu ed., \textit{Isei hyakunenshi} (One Hundred Years of Medical System) (Documents), (Tokyo: Gyosei Co., 1976): 545-547.
\textsuperscript{22} Fujikawa Yu, \textit{Nihonshipeishi} (1969): 221.
Currently, there are divergent severe diseases in the streets of Nagasaki. It started with emesis but soon developed to chest and ribs pains, followed by diarrhea 2 to 5 times. Then, the patient looks haggard and dies only in 2 to 3 days in that condition. There are various symptoms other than that. Once diagnosed, the healthiest man would fall down and die without getting much treatment. Others with the disease feel chilly with high fevers. Some fortunate patients recover in 3 days. Yet, I haven’t received an accurate report on this disease. I just assume it is a kind of cholera and ordered an investigation.24

As epidemics including cholera had a direct impact on shifts as well as international trade, the head of Commercial House would have never missed reports on them. In fact, as the term of then-head of Commercial House was expired in 1822, his home country postponed sending his successor due to cholera. In addition, the head of the Dutch Commercial House had been closely examining the movements of merchant ships of China which was a rival country of the Netherlands. Yet, no reports were found on epidemics including cholera in Chinese merchant ships.25

If you closely look into The Diary of Dutch Commercial House in Nagasaki, you can find less convincing the hypothesis that cholera spread from Jakarta-Nagasaki or China-Nagasaki to southern Japan and mid-Japan. In other words, it sounds more reasonable to conclude that cholera started in Choshu via Tsushima Island and then spread both to southern Japan including Shimonoseki and Nagasaki and to mid-western parts of Japan including Osaka, rather than to Shimonoseki, Choshu, and Osaka via Nagasaki. Ironically, Hujikawa’s references support such an idea. He quoted many a reference that backed the idea that cholera started in Joseon and spread to Tsushima Island and Choshu.26

Meanwhile, Arano Yasunori, who supported the Joseon-Tsushima route, pointed out that it was from August 20 to September 26, 1821 when cholera first arrived at Tsushima Island from Joseon. Yet, it is hard to confirm the epidemic that broke out on August 30 was cholera. Moreover, the first case of cholera in Joseon was reported on September 9, 1821 in Pyeongan Province. It is unreasonable to retrace the first incidence of cholera back to as early as the end of August. The Japanese report on the epidemic was dated as

August 20 in Tsushima Island. Hence, it is hard to conclude the epidemic in question came from Joseon.

Even if it is true that the epidemic on August 20, 1821 came from Joseon, the 1821 cholera did not affect the mainland Japan. In August 31, 1822, an epidemic suspicious of cholera broke out in Tsushima Island. Until September 18, it didn’t stop. The Japanese government proclaimed that all shrines go to great lengths to pray. Then, the epidemic spread to Choshu in September 1822 and to Nagasaki and Osaka in November as mentioned above.

III. Intermediary Trade Route and Disease of Intermediary Trade

From the era of the Three Kingdoms until the end of the 19th century, Sinocentrism had been dominant order in East Asia, represented by Investiture and Intermediary Trade. Thus, international trade in East Asia was led by China and the trade thereby was not brisk. What’s more, international trade had been more restricted since 1368 when Ming dynasty, replaced with Yuan dynasty, put an embargo on. China started to remove embargo voluntarily in the late 15th century. Since the 16th century, western merchants made inroads to East Asia, participating in international trade. In particular, Ming and Qing dynasties introduced the silver-standard in their economy. Joseon and Japan alike followed China’s step. As a result, it became the standard of international trade in East Asia to secure and circulate silver. In the beginning, Japanese silver was imported via Joseon to China. Yet, Joseon started to develop silver mines gradually on its own. For instance, Korean merchants bought silver from Japan which ran lots of silver mines and the sell them to China. In reverse, they bought raw silk and silk fabrics from China and sold them to Joseon and Japan. It was a sort of intermediary trade. Such international environments prompted Joseon to grow and distribute commodity crops. The most popular were ginseng and tobacco. Joseon made a tremendous fortune by selling ginseng and tobacco during 17th to 18th century and thereby caused China to drain its national wealth considerably. Therefore, China asked Joseon to remove ginseng and tobacco from the official list of export items. Still, the popularity of commodity crops continued until early in the 19th century in private trade and

smuggling trade with China and Japan without regards to official trade.\textsuperscript{29} The vitalization of intermediary trade and the popularity of commodity crops in East Asia are closely related with the introduction of the silver-standard in the economy. Although Europeans had continuously advanced into East Asia from the late 16\textsuperscript{th} century until the end of 19\textsuperscript{th} century, it was not until the mid 19\textsuperscript{th} century that Europeans’ expansion was accelerated. England started to make opium trade more obvious and public while Chinese and Japanese merchants replaced Joseon’s intermediary trade with European linens. It was from the 16\textsuperscript{th} century until 19\textsuperscript{th} century when world trade had been rearranged from tributary trade to intermediary trade to international trade. Roughly speaking, tributary trade is a form of unilateral trade, intermediary trade, a form of mutual trade, and international trade, a form of multilateral trade. In fact, epidemics spread through international trade, thereby reflecting each form of trade in their transmission.

What is noticeable in the spread of cholera is that it was a two-way process not only from Japan to Joseon to Qing but also from Qing to Joseon to Japan. According to diplomatic documents such as \textit{Guhanguk Oegyo Munseo} (Old Korea’s Diplomatic Documents), the cholera outbreak in Busan in June 1879 was followed by the fifth prevalence in Japan in 1879.\textsuperscript{30} In September 1890 when cholera occurred in Nagasaki and Kobe, quarantines were enforced in Incheon, Busan, and Wonsan in Joseon.\textsuperscript{31} Besides, the cholera outbreak in Hanseong right after Nagasaki in 1858 is considered an example of the spread from Japan to Joseon.\textsuperscript{32} Moreover, In July 1886, another outbreak of cholera, which started in Busan in early July and spread northward in mid-July, was an example of the Japan-Joseon spread.\textsuperscript{33} At that time, international trade between Qing, Joseon, and Japan was vibrant. Thus, it is reasonable to infer that epidemics including cholera spread both from Joseon to Japan and vice versa.

\textsuperscript{29} Lee Cheol-seong, \textit{Joseonhugi Daecheong Muyeoksa Yeongu} (The Study of History of Trade with Qing China in the late Joseon) (Seoul: Gukhak Jaryowon, 2000); Jeong Seong-il, \textit{Joseonhugi Daeil Muyeok} (The Trade with Japan in the late Joseon) (Seoul: Shinseowon, 2000).
\textsuperscript{30} \textit{Guhanguk Oegyo Munseo} (Old Korea’s Diplomatic Documents) (Seoul: Korea Univ. Press, 1969), vol. 1 no. 57 (June 20, 1879). Besides, \textit{Seungjeongwon Ilgi} (The Diaries of the Royal Secretariat), \textit{Bibyeonsa Deungrok} (Records of the Border Defense Council), \textit{Joseon Wangjo Sillok}, \textit{Jeongchi Ilgi} (The Diaries of Politics), \textit{Guhanguk Oegyo Munseo}, and \textit{Nihon Gaiko Humigaki} (The Japanese Diplomatic Documents) refer to this fact in 1879.
\textsuperscript{31} \textit{Guhanguk Oegyo Munseo} vol.2 no. 1752 (October 23, 1890). A lot of documents in \textit{Guhanguk Oegyo Munseo} refer to this fact in 1890.
\textsuperscript{33} Park Hyeong-woo, \textit{Jejungwon} (Saving People Hospital) (Seoul: Mom-gwa maeum, 2002): 100.
IV. Conclusion

In East Asia, epidemics spread mostly through trade routes that epidemics can be referred to as a kind of trade diseases. “Disease of Tributary Trade” and “Disease of Intermediary Trade” mean that the life of disease assume the same pattern as tributary trade or intermediary trade, rather than they were spread through tributary trade and intermediary trade. That is, disease of intermediary trade was open and reciprocal while tributary trade was closed and unilateral. For example, most epidemics including smallpox, pest, and scarlet fever are seen as kinds of disease of tributary trade. Disease of tributary trade was spread from Qing to Joseon but it is hard to prove that it was spread in the reverse direction. Only in a Korean exorcism performance to get rid of smallpox, called “Mamabaesonggut,” recites a shaman, “Hogu-mama, please go back to where you came.” Here, Hogu means China or a ghost from China. The performance to return the evil spirit to China also reflected the one-off return courtesy of tributary trade. By performing an act of giving the ghost some money in the name of one-way travel expenses, they prayed the ghost would never come back. The Japanese understand that smallpox was transmitted from Shilla. In Japan, there is a tale that a pregnant Empress Jinku conquered the Three Kingdoms (Goguryeo, Shilla, and Baekje) in the ancient Korean peninsula with the help of the deity of Sumiyoshi. For such reasons, Sumiyoshi Shrine was frequented by Japanese leaders who had prepared to invade the Korean peninsula. The idea used to be prevalent in Japan that Japanese could prevent the evil spirits of smallpox spread from the Korean peninsula only when they worship the deity of Sumiyoshi.34 This also represents a one-off aspect of tributary trade that takes the form of return. On the other hand, cholera is the best example of disease of intermediary trade. It circulated through intermediary trade routes reciprocally since the 19th century.