



The Post Pandemic Revitalization Plan for the Medical Tourism Sector in South Korea: A Brief Review

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Abstract

The significant impacts of recent infectious diseases (MERS, COVID-19) demand fundamental changes and alternatives in different markets, such as tourism and the medical tourism industry. In this study, we aimed to have a historical investigation on how infectious diseases have affected the tourism industry in Korea, to reach practical implications for managing the medical tourism sector. The impact of global infectious diseases, including MERS, and COVID-19, on the tourism industry was studied in South Korea. First, the available information was collected to clarify how these two outbreaks have impacted the tourism market in South Korea, and then the government's countermeasures were studied. Investigating among the policies resulted in practical implications for the post-pandemic revitalizing plan for the medical tourism market. The infectious outbreak caused a significant decrease in the number of inbound tourists to South Korea, moreover, the crisis response system of the government has been useful so far. Hence, several practical implications can be achieved for the medical tourism market. A framework is suggested which involves 5 stages of strategies to revitalize medical tourism market. It presents remedies to revitalize the medical tourism industry and to enter the global market again. Korea's quarantine model, which succeeded in preventing COVID-19, can be a preemptive response to another pandemic in the future. The medical tourism industry policy based on Korea's quarantine model will contribute to the revitalization of the international medical tourism industry after COVID-19.

Keywords: COVID-19; Global infection; Tourism; Medical tourism; Medical policy

Introduction

From the last decade, several countries in Asia have focused on the international marketing of medical tourism due to its significant economic benefits (1). The characteristics of medical tourism in most of the countries in East Asian countries are low cost of medical treatment, high-quality medical service, and a short waiting time

However, in Korea, after the revision of the Medical Service Act in 2009, the medical tourism market has been one of the main concerns of the government. This country mainly focused on a high-quality medical service, and specifically in the area of cosmetic surgery and cancer treatment (2). Despite concerns that the country started



later than other countries in Asia, Korea has achieved remarkable growth in a short period and has recently become a major medical tourism country.

However, the frequent outbreaks of global infectious diseases (SARS, MERS, and COVID-19) in recent years have raised the need to review the system of international medical tourism. Infectious diseases are deeply related to personal medical care, social and public health care. After World War II, infectious diseases were thought to be no longer a problem due to vaccines and antibiotics. However, in just a few decades, infectious disease has become a worldwide crisis (3). Urbanization, high population density, and transnational mobility accelerate the speed of spread of infectious diseases (4). SARS, one of the most common infectious diseases of the 21st century, has resulted in a total of 8,098 cases in 26 countries and 74 deaths since it began in China in the winter of 2002 and ended in July 2003 (5). The 'swine flu' in 2009 and MERS in 2015 appeared mainly in the Middle East. Overall, 2,482 positive cases were detected in 27 countries, including Europe and the Middle East, and 854 died (WHO, as of Oct 31, 19). Around 98% (1,117) of total infected patients were in the Middle East such as Saudi Arabia and the United Arab Emirates (mortality rate: 41%) (6). Even though the quality of life has improved significantly (for instance, the development of hygiene environment, the development of medicine, and the extension of life expectancy) the fear of infectious diseases is as high as ever (7). COVID-19, which occurred in early 2020, has been unpredictable and out of control and it has changed our lives entirely. The spread of COVID-19 around the world has become a serious problem as many people believe that it is impossible to return to the world before COVID-19 again. This is an opportunity for countries around the world to recognize that the medical crisis caused by this pandemic is a task to

be solved through transnational cooperation, and it is essential to establish a new frame of global "health security". The Director-General of the WHO said on Mar 10, 2020, that the outbreak of this novel coronavirus is a public health emergency of international relations, which is the highest level of awareness of the WHO (8). This was also a declaration calling for a world-class countermeasure of infectious diseases at a global level.

This study investigated the situation in which infectious diseases have affected the tourism industry in South Korea, and how the government designed the revitalization plan. The final goal was to reach to lessons and design some remedies that can be applied in medical tourism sector.

When it comes to the medical tourism sector, designing the revitalization plan during and after the pandemic is far more difficult due to the nature of this sector. The involved customers are in a very vulnerable situation; besides safety and trust have been always the basic requirements in medical tourism. While during the epidemic or pandemic there is a shortage of both safety and trust levels for travelers around the world.

We aimed to have a historical investigation on how infectious diseases have affected the tourism industry in Korea, to reach practical implications for managing the medical tourism sector.

A brief history

Figure 1 shows the trend of inbound visitors to Korea over the past 20 years. The decline in the number of inbound in 2002, 2015 and 2020 accurately illustrate the impact of the infectious diseases spread, such as SARS, MERS, and COVID-19. The spread of COVID-19 is continued, and it significantly affected on the inbound tourists. With COVID-19, the spread of infectious diseases can harm the medical tourism sector in the short to long term (9).

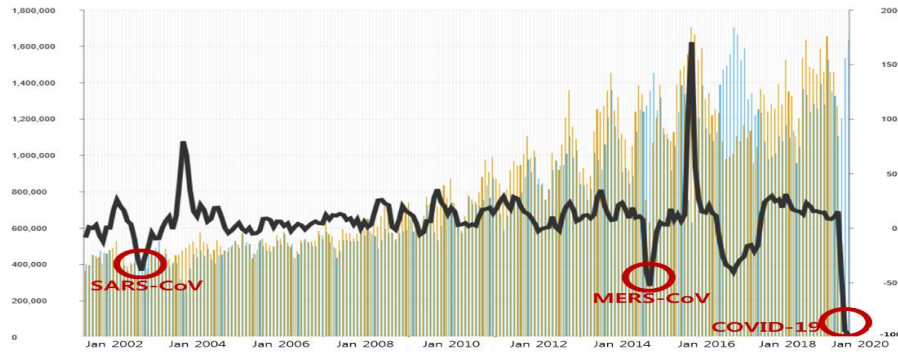


Fig.1: Inbound statistics in Korea (2002-2020)
Source: Korea Tourism Organization (2020.06.08)

Demand changes in tourism: MERS

1) MERS outbreak and countermeasure in Korea in 2015

MERS is an infectious respiratory disease and it first occurred in the Arabian Peninsula in the Middle East in September 2012. It spread rapidly in Korea as a foreigner infected by MERS entered Korea in May 2015 and it was reported 186 confirmed cases and 38 deaths (Ministry of Health and Welfare, 2018). During that epidemic period, Hong Kong issued a red warning (restriction of unnecessary travel) for travel to Korea, and China recommended a temporary suspension of visits to Korea (10). The Korean government administered the information provision service by phone for incoming tourists and conducted various activities to address the reliability of the Korean health care system.

In 2015, the Korean government operated a crisis response team under control of the Ministry of Health and Welfare's Centers for Disease Control and Prevention, taking into account the seriousness, spread speed, duration, and ripple effects of MERS and the government's capability to respond to MERS (11). On May 20, 2015, when the first confirmed patient with MERS occurred, the government raised the alert level of infectious diseases from concern to caution. The government initiated several measures by different organizations, for instance “public-private joint action group”, the “task force team for new infectious diseases response”, and the “MERS coun-

termeasure headquarters of the Korean medical association”. The advisory committee, countermeasure committee, and policy committee under the countermeasure headquarters were operated and, especially, the policy committee proposed a mid- to long-term plan for the operation of risk management for infectious diseases at country level.

Later, the government announced a plan to reorganize the national quarantine system, and to proceed with the paid compensation for losses to the damaged medical institutions related to MERS. On Jan 2016, the Board of Audit and Inspection announced the results of the MERS incident, and since then, this committee has been operating as a medical-related infection council and to operate the improvement during the epidemic or pandemic (12).

Analysis of demand changes in medical tourism: MERS

In 2015, the international tourism demand in Middle East Asia, the major MERS occurred area, had fluctuated from Feb to Oct and began to recover after Dec (Fig. 2). There was no noticeable change in the demand of Asia Pacific region except Korea. The total number of tourists traveling to Korea in 2015 was 13,231,651. It had decreased from Jun to Sep and recovered to the previous level after Oct, which caused severe loss in tourism balance (13).

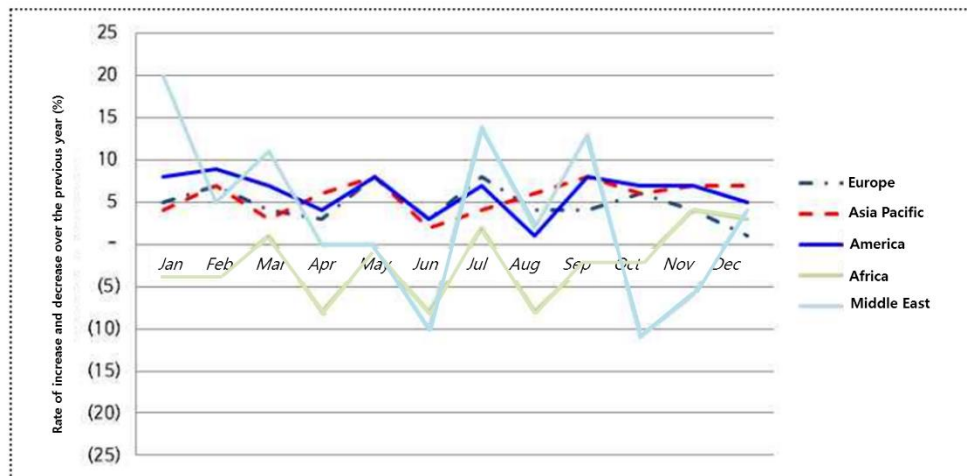


Fig. 2: Changes in tourism demand by month in 2015
Source: UNWTO (<https://www.unwto.org/>)

During the three months of the MERS outbreak, the Korean government isolated 16,993 people and spent around 850 million dollars to minimize the effect of MERS (14). The emergence budget was mostly spent on assistance for the designated hospital for MERS, care facility, and transformation of national quarantine system. The total economic loss is estimated as 8.5 billion dollars. There were tremendous losses in the overall industry including tourism industry; however, since the duration of the MERS outbreak in Korea was rather short, it is inferred that the impact of MERS outbreak is not as massive as that of COVID-19.

Demand changes in tourism: COVID-19 COVID-19 status and countermeasure

The number of COVID-19 confirmed cases surged worldwide in early 2020. As of Jun 29, 2021, in Korea, the total confirmed cases were 156,167 and deaths were 2,017 (15). The first COVID-19 confirmed case in Korea was a Chinese woman, who crossed the border on Jan 20, 2020 from Wuhan, China, and as a Korean, a 55-year-old man was confirmed on Jan 24. The Korean government established the Central Disaster Management Headquarters on Jan 27. The medical profession connected quarantine and clinical service, operating an emergency medical coun-

termeasure headquarter based on the Korea Medical Association and Korean Hospital Association. However, as the cases surged sharply, the government raised the crisis level to “seriousness” and other measurements were adopted. They strengthened the quarantine system and public medical system. Specifically, they set up the main department for epidemiological investigation, supplied masks to the public through pharmacies, and implemented the social distancing campaign. In addition, it has been mandatory to quarantine for two weeks after taking the test, and all passengers entering the country must download the diagnostic mobile app and respond to the monitoring of officials. Consequently, the rising trend in the confirmed cases had slowed down in the second half of 2020. The response of the Korean government and the Korean society to COVID-19 demonstrates that not only the government policies but also the cultural context and lifestyle of Korea play a significant role in controlling the spread of virus; all these factors has let to organize the response system actively and promptly (16).

Analysis of demand changes in Medical tourism: COVID-19

There were 17,502,756 foreign visitors to Korea in 2019, of which 497,464 people visited as for-

eign patients from other countries. Among them, there were 473,000 outpatients and 24,000 inpatients, an increase of 31.3% compared to the previous year (17). However, the number of foreign visitors decreased significantly in 2020. The number of foreign patients has dropped sharply. As such, 2019 was the year when Korea's medical tourism sector achieved excellent results, and it won the grand prize at the "Medical Tourism Destination of the Year" at the global medical tourism conference "IMTJ Medical Travel Summit 2019 (18)." However, as the global medical tourism market shrank in line with the COVID-19 pandemic in 2020, the number of overseas visitors to Korea was 2,519,118 and a cumulative 268,695 in May 2021. Thus, Korea ranked 14th with 68.81 points in the World Medical Tourism Index (MTI 2020-2021) published by the International Healthcare Research Center (IHRC) (19).

Implications for the medical tourism sector in South Korea during the pandemic

The losses in the Korean medical tourism industry due to COVID-19 are incomparable to that of happened during the MERS epidemic in 2015. However, the experience of MERS in Korea left many valuable lessons on the countermeasures policies to infection diseases. On the previous experience, Korean government enforced neither state control nor active movement control orders. However, for the COVID-19 pandemic, the proactive and transparent regulations of the Korean government decreased the level of negative effects. Even though vaccinations began in some countries, still there is a possibility of another crisis and COVID-19 is far from a complete end. Searching among those action plans that have assisted in revitalized the tourism industry after crisis in Korea, we found the advanced technology as a privilege that can facilitate the revitalization of medical tourism, in the contemporary situation. The world has applied the digitalized health-bio industry based on telemedicine as a remedy to disease prevention and health management and, several countries put much effort into building the telemedicine system. According

to McKinsey, since COVID-19, the usage rate of the telemedicine service in the United States increased by 46%, and more doctors and medical institutions are using the telemedicine system (20).

The Korean government has inevitably granted temporary permission for telemedicine only in tele-counseling and prescription. It can be inferred what the medical tourism industry should prepare after the pandemic. If the non-face-to-face medical service enlarges in the medical tourism industry, more than 20,000 Korean doctors worldwide, who can communicate in English, can utilize the Korean telemedicine system at their base. Accumulated data for various diseases, diagnoses, and clinic can be exploited to cure patients several times (21). In the era of COVID-19, it is recommended to reduce the disagreement between the medical and IT industry and decrease the strict regulations on telemedicine. Moreover, specific measures such as the clean tourist destination campaign, the quarantine certification system, and insurance plans for infectious diseases are necessary. Therefore, the non-face-to-face medical service will lead to more promising outcomes in response to infectious diseases later. Specifically, it is recommended to develop a digital health care platform for the biohealth industry and implement an international quarantine certified system and health insurance policy for infectious diseases.

A recovery plan for the medical tourism sector in South Korea during the pandemic

No country is free from the pandemic. During the pandemic, the medical tourism industry has stagnated. Now policies for unpredictable infectious diseases should be added to the preexisting measures for the revitalization of medical tourism industry. As seen in the case of Korea, already experienced MERS, the policies implemented by the Korean government including the K-quarantine system along with the non-face-to-face medical service are suggested for the future of medical tourism industry.

Firstly, it is recommended to establish a government-centered collaborative system between de-

partments and deliver the countermeasures to local health centers and private hospitals in a top-down manner.

Secondly, it is advised to ensure transparency in communication with citizens to embrace the decided measures without discordance and request cooperation at the national level.

Thirdly, it is proposed to systemize the non-face-to-face medical service. It should provide detailed information such as extensive antibody tests, the movement and isolation of confirmed patients, and vaccination to mobile phones through the IT system.

Fourthly, it is encouraged to adopt the international quarantine certification, maintain the quarantine system of local governments, and manage the intact areas. It is principal in the medical tourism industry of the local.

Lastly, it is advised to promote the excellence of the K-quarantine model as a country to successfully manage the pandemic.

Conclusion

The pandemic is still around the corner and its impact on international tourism and medical tourism industry is enormous. Many people will take a trip and medical tourism once the pandemic is completely terminated or COVID-19 is easily curable and preventable with various vaccines and treatments. The medical response system to minimize the pandemic risk related to international movement will be a key point in determining the medical service level of the medical tourism destination. In this regard, Korea will be chosen as a safe destination for medical tourism as it has successfully managed the pandemic with the K-quarantine model. All in all, the Korean medical tourism industry has potential to be revitalized with suggested medical policies and the K-quarantine model.

Ethical considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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Conflicts of interest

The authors have no conflicts of interest to declare.

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