



Mini Review

Copy Right@ Hidenori Tanaka

The Role of Kampo in the COVID-19 Pandemic

Hidenori Tanaka^{1,3*}, Yasuhito Irie^{2,3} and Hajime Nakae^{2,3}

¹Department Onoba Tanaka Ladies Clinic, Akita, Japan

²Department of Emergency and Critical Care Medicine, Akita University Graduate School of Medicine, Japan

³Department of Traditional Japanese Medicine, Akita University Hospital, Japan

*Corresponding author: Hidenori Tanaka, Department of Traditional Japanese Medicine, Akita University Hospital, Japan.

To Cite This Article: Hidenori Tanaka, Yasuhito Irie, Hajime Nakae. The Role of Kampo in the COVID-19 Pandemic. Am J Biomed Sci & Res. 2021 - 15(2). AJBSR.MS.ID.002082. DOI: [10.34297/AJBSR.2021.15.002082](https://doi.org/10.34297/AJBSR.2021.15.002082)

Received: 📅 December 13, 2021 Published: 📅 December 23, 2021

Abstract

Kampo is often associated with the treatment of chronic disease and its role as a complementary therapy. However, it is well known that Kampo have a potential drug of anti-virus infection like influenza. Recently, there are some reports of effectiveness for COVID-19. We would like to introduce the role of Kampo in the COVID-19 pandemic world.

Keywords: COVID-19; Kampo

Abbreviations: COVID-19; Coronavirus Disease-2019; Sars-Cov-2; Severe Acute Respiratory Syndrome-Coronavirus-2

Introduction

The COVID-19 pandemic, caused by the severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) virus, continues to affect the world. Various vaccines have been developed and administered, and new therapeutic modalities have gradually improved their efficacy. However, SARS-CoV-2 is an RNA virus. Thus, it mutates quickly and continues to threaten numerous lives. Attending to patients with moderate disease before their condition worsens and reducing the post-disease sequelae are essential in managing coronavirus disease-2019 (COVID-19) patients. Kampo

plays a significant role in achieving these goals. Kampo is often associated with the treatment of chronic disease and its role as a complementary therapy. However, the early application of Kampo in medicine has been traced to an anti-infection manual, called the *Shanghanlun*, developed in 200 A.D. It was used to treat typhoid fever and influenza, which were considered fatal. This knowledge was passed onto Japan and underwent unique local development. It was formally investigated in the Meiji era. With this, I would like to introduce the role of Kampo in the treatment of COVID19. Kampo compositions in this article are described in Table 1.

Table 1: Kampo compositions of Kakkonto, Shosaikotokakikyosekko, Saikatsugokito, Kakkontokasenkyushin'i, and Hochuekkito.

Kampo Medicine	Ingredients
Kakkonto	JP Pueraria Root, JP Jujube, JP Ephedra Herb 3, JP Glycyrrhiza, JP Cinnamon Bark, JP Peony Root, JP Ginger
Shosaikotokakikyosekko	JP Gypsum, JP Bupleurum Root, JP Pinellia Tuber, JP Scutellaria Root, JP Platycodon Root, JP Jujube, JP Ginseng, JP Glycyrrhiza, JP Ginger
Saikatsugokito*	JP Bupleurum Root, JP Pueraria Root, JP Ephedra Herb, JP Cinnamon Bark, JP Scutellaria Root, JP Peony Root, JP Pinellia Tuber, JP Ginger, JP Glycyrrhiza, JP Gypsum
Kakkontokasenkyushin'i	JP Pueraria Root, JP Jujube, JP Ephedra Herb, JP Glycyrrhiza, JP Cinnamon Bark, JP Peony Root, JP Magnolia Flower, JP Cnidium Rhizome, JP Ginger
Hochuekkito	JP Astragalus Root, JP Atractylodes Lancea Rhizome, JP Ginseng, JP Japanese Angelica Root, JP Bupleurum Root, JP Jujube, JP Citrus Unshiu Peel, JP Glycyrrhiza, JP Cimicifuga Rhizome, JP Ginger

Note: *Application with Kampo medicine combination i. e. kakkonto + shosaikotokakikyosekko

JP: The Japanese Pharmacopoeia.



Discussion

Kampo Therapies for COVID-19

Kampo therapies for common colds have been well-established in Japan. Its safety profile and side effects are also well-understood [1-2]. Like common colds or influenza, COVID-19 presents with various symptoms, including fever, headache, sore throat, cough, joint pain, diarrhea and vomiting. Mild COVID-19 symptoms were effectively alleviated by Kakkonto, but severe sore throat and

coughing were not. According to previous reports, Japanese Kampo doctors prescribed Saikatsugekito, a combination of Kakkonto and the anti-inflammatory Shosaikokakikyosekko, during the Spanish flu pandemic (1918-1920) Irie, et al. [3]. have successfully treated COVID-19 patients by prescribing this Kampo combination [4,5]. Kampo treatments were also effective against COVID-19 pneumonia when combined with Western medical therapies [6,7] (Figure 1) shows the effectiveness image of Saikatsugekito against COVID-19 [8].

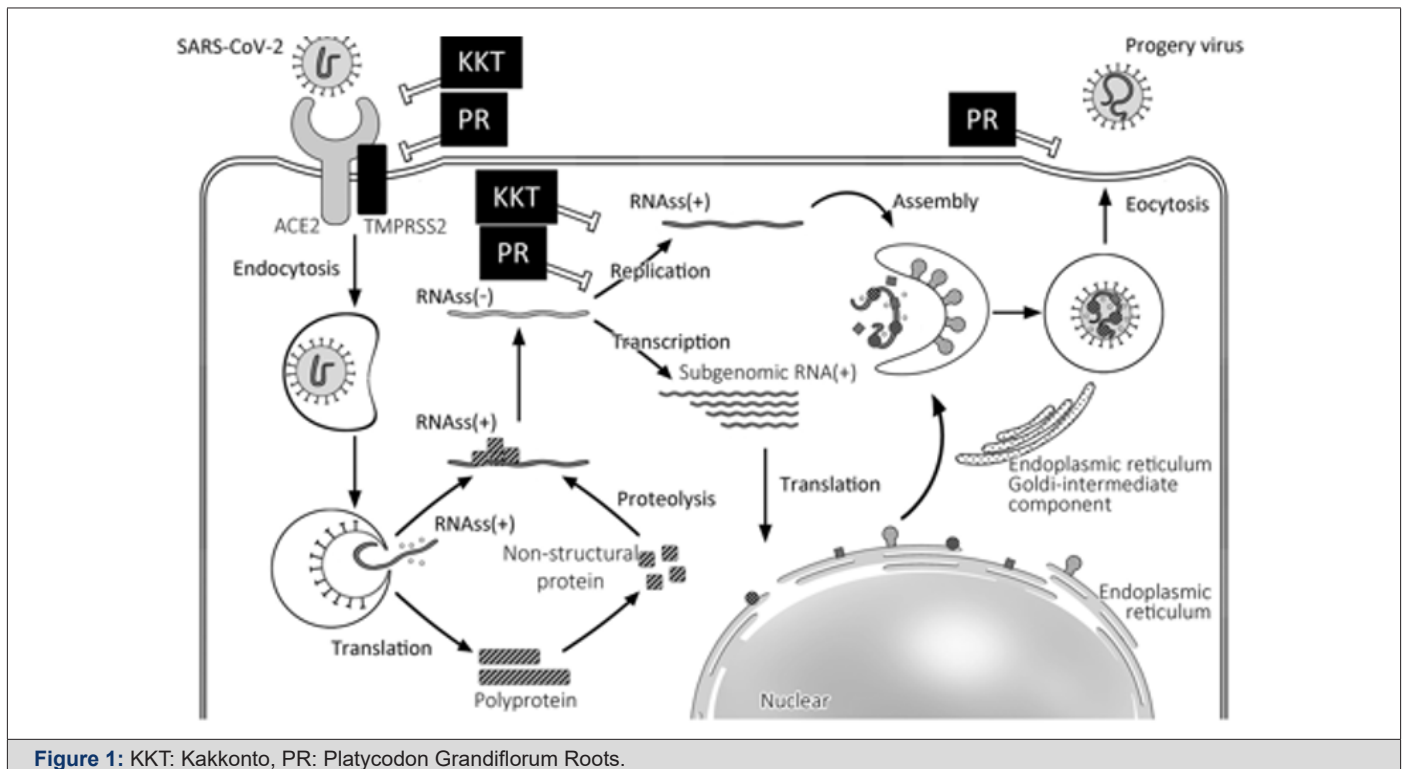


Figure 1: KKT: Kakkonto, PR: Platycodon Grandiflorum Roots.

Kampo Treatments for Sequelae

After treatment, the taste and olfactory disorders typically persisted even when the other COVID-19 symptoms have improved. These were difficult to treat using Western medical therapies. COVID-19-related olfactory disorders were reportedly associated with inflammation and congestion, especially in the olfactory bulb and cleft Takayama, et al. [2] reported that Kakkontokasenkyushin'i effectively alleviated COVID-19-related olfactory disorders [9]. Its effectiveness was attributed to the antiviral and anti-inflammatory effects of Kakkontokasenkyushin'i. Moreover, it improves mucosal edema in the tissues of the olfactory bulb and cleft and protects against neural damage. Hochuekkito effectively alleviates general malaise following COVID-19 infection. It is also an immunostimulant, so it can prevent future infections [10].

Conclusion

Large-scale clinical studies on Kampo for COVID-19 are being conducted in Japan [11]. We recommend the application of Kampo in the medical treatment of COVID-19 infection and its sequelae.

Conflict of Interest

There are no conflicts of interest to declare.

References

1. Kubo K, Azuma A, Kanazawa M, Kameda H, Kusumoto M, et al. (2013) Consensus statement for the diagnosis and treatment of drug-induced lung injuries. *Respir Investig* 51(4): 260-277.
2. Takayama S, Arita R, Iwasaki K (2017) How do you treat upper respiratory infections in the elderly in your practice? *Med Acupuncture* 29(2): 105-113.

3. Irie Y, Nakae S (2020) The role of kampo medicines in the pandemic of viral infections: learning from the Spanish flu. *Kampo Med* 71: 272-283.
4. Irie Y, Nakae H, Fukui S (2020) Three mild cases of coronavirus disease 2019 treated with saikatsugekito, a Japanese herbal medicine. *Trad Kampo Med* 8 (1): 111-114.
5. Irie Y, Nakae H, Fukui S (2021) Treatment of coronavirus disease 2019 with saikatsugekito: a case series. *Trad Kampo Med* 8(3): 211-220.
6. Niitsuma K, Suzuki T, Saito M (2020) Two cases of novel coronavirus (COVID-19) pneumonia that had occurred asymptotically including a severe case of organized pneumonia pattern. *Infect Dis* 1-5.
7. Homma Y, Watanabe M, Inoue K, Moritaka T (2020) Coronavirus disease-19 pneumonia with facial nerve palsy and olfactory disturbance. *Intern Med* 59(14): 1773-1775.
8. Arita R, Ono R, Saito N, Takayama S, Namiki T, et al. (2020) Kakkonto, shosaikoto, Platycodon grandiflorum root, and gypsum (a Japanese original combination drug known as saikatsugekito): Pharmacological review of its activity against viral infections and respiratory inflammatory conditions and a discussion of its applications to COVID-19. *Trad Kampo Med* 7(3): 115-127.
9. Takayama S, Arita R, Ono R, Saito N, Suzuki S, et al. (2021) Treatment of COVID-19-related olfactory disorder promoted by kakkontokasenkyushin'i: a case series. *J Exp Med* 254(2): 71-80.
10. Takayama S, Kikuchi A, Makino T, Kainuma M, Namiki T, et al. (2020) Basic pharmacological mechanisms and clinical evidence of the efficacy of hochuekkito against infectious diseases and its potential for use against COVID-19. *Trad Kampo Med* 8(1): 3-21.
11. Takayama S, Namiki T, Odaguchi H, Arita R, Hisanaga R, et al. (2021) Prevention and recovery of COVID-19 patients with Kampo medicine: Review of case reports and ongoing clinical trials. *Front Pharmacol* 12: 656246.
12. Ryutaro Arita, Rie Ono, Natsumi Saito, Shin Takayama, Takao Namiki, et al. (2020) Kakkonto, shosaikoto, Platycodon grandiflorum root, and gypsum (a Japanese original combination drug known as saikatsugekito): Pharmacological review of its activity against viral infections and respiratory inflammatory conditions and a discussion of its applications to COVID-19. *Trad Kampo Med* 7(3): 115-127.