

Doc Hay: A Chinese Herbalist Combating the 1918–1919 Influenza Pandemic in America

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Abstract

This is a story about a Chinese herbalist Ing “Doc” Hay who combated the 1918–1919 influenza pandemic in the America West. As an immigrant, he came to the States as a laborer, but he had knowledge of Chinese herbal medicine due to his family heritage. This made it possible for him to start practicing in the Chinese community in John Day, Oregon, until 1948 when he retired. During the time of the pandemic running wild in the 1910s, he prescribed formulas aimed at flu and boiled herbal decoction, personally delivering it to a working site for those Chinese laborers as well as non-Chinese patients. None of the laborer patients treated by him died during this deadly pandemic. Due to his success and fame, his practice was booming even after the Chinese community disappeared in John Day in later years. Doc Hay is always remembered in the history of earlier development in eastern Oregon, so that the site of his practicing, Kam Wah Chung and Co. Building, is now a national historic landmark. And more importantly, he has also been remembered by Chinese herbal medicine practitioners in the United States.

Keywords: 1918–1919 Flu, Chinese herbalist, combated epidemic, COVID-19, Ing “Doc” Hay

INTRODUCTION

COVID-19 pandemic in 2020 is a century catastrophe, which caused over 12.5 million positive cases confirmed while the death toll climbed over 560 thousand (as of July 12, 2020) in the world. A similar memory dated back to the 1918–1919 influenza pandemic which caused a total of 50 million deaths.^[1] Chinese medicine has successfully been applied to combating COVID-19 pandemic in China, and the therapeutic outcome was significant during the pandemic period, the first quarter of 2020. A few people knew that Chinese medicine was also applied to combating epidemic a hundred years ago in the United States. One book on my library shelves introduced this story about a Chinese herbalist Doc Hay during that time in the America West. The title of this book is *China Doctor in John Day*, which was published by Binford and Mort Publishers in 1979. Jeffery Barlow and Christine Richardson were the authors [Figures 1 and 2].

STORY ABOUT DOC HAY

As described in this book, the name of Doc Hay was Ing Hay (1862–1952) [Figure 3], born in Xiaping Village, Taishan

County, Guangdong Province, China, who wanted to seek fortune abroad and came to the US as a young man to work as a gold miner at the beginning. Since he was so knowledgeable about herbology and posology in the community of John Day and beyond, he was respected as “Doc Hay.”

As introduced by Nancy Yao Maasbach, President of the Museum of Chinese in America (MOCA), Doc Hay’s real surname was ING. His full name was ING Hay Wah (伍于念, Chinese name order with surname first), but his descendants were mistakenly given the surname “Wah” instead of “Hay.” From April 26, 2018 to September 16, 2018, this museum presented a special exhibition named *On the Shelves of Kam Wah Chung and Co.: General Store and Apothecary in John Day, Oregon*.^[2] Doc Hay once again emerged into the public attention [Figures 4 and 5].

After the Gold Rush (1848–1855) and transcontinental railroad construction (1863–1869), Ing Hay, together with

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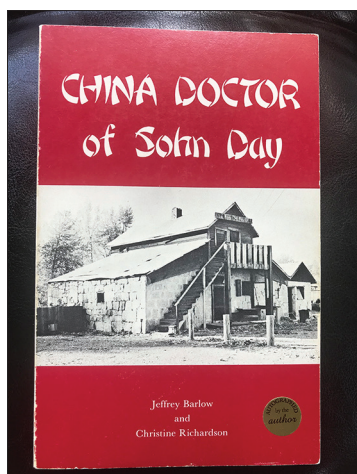


Figure 1: Book cover

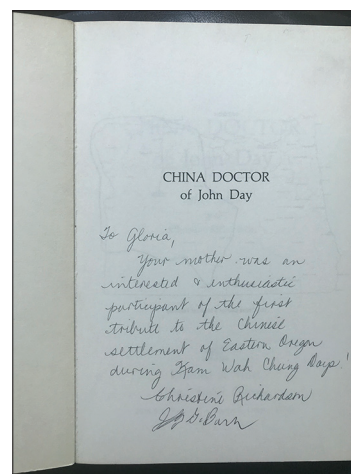


Figure 2: Authors' handwriting



Figure 3: Photo of Ing Hay (from *China Doctor in John Day*)



Figure 4: Exhibition poster on the Shelves of Kam Wah Chung and Co.

his father, followed his five uncles to the United States around 1883. Then in 1885, Hay and his father moved to Walla Walla, southeast of the Washington state, which had a thriving Chinese community. Hay's father returned to China in 1887, but Hay remained in the United States. In that year, he relocated himself to John Day where he became acquainted with a fellow Chinese immigrant named Lung On (梁光荣 or 梁安), a well-educated merchant. Grown up from a family of herbalists, Ing Hay also learned from an old Chinese Doc Lee in John Day, who gave him his own book of medicinal herbs and formulas.

John Day is a small and distant city in Grant County of the eastern Oregon, about 1669 residents in 2017,^[3] and now, it still takes a five-hour drive to the largest city in the state, Portland. An 1885 fire in nearby Canyon City's Chinese quarter swelled the number of John Day's resettled Chinese workers, closed to a thousand inhabitants. However, in 1887, when Ing Hay arrived, this city accommodated around five to six hundred Chinese inhabitants, who were closely tied to the development of gold mining in the area. Furthermore, at that time, a new road construction project was under way and many Chinese laborers

were hired for it. The majority of Chinese miners in there were from Taishan County, Ing Hay, too, spoke their dialect. Ing Hay intended to practice Chinese medicine in the mining frontier as a "China doctor," as he was known to the white community. Lung On then recognized in Ing Hay – "Doc Hay" – a major asset to the frontier Chinese miners and laborers. No wonder Lung On asked the young man to go into the partnership of Kam Wah Chung and Co.

In 1888, Ing Hay and Lung On purchased the Kam Wah Chung and Co. Building, which later became a center of the local Chinese community. Lung On played a role as a general store proprietor and businessman and Doc Hay had been a practitioner of Chinese herbal medicine in this building until he retired in 1948.

By 1940, Doc Hay's eye sight was all but gone, and with his partner Lung On being dead, it is hard to imagine what loneliness must have beset him in the old Kam Wah Chung and Co. Building, which had once been the scene of so much noisy ceremony and of a friendship which spanned two eras and two cultures. (P. 91)



Figure 5: Exhibition poster in Museum of Chinese in America, 2018

Iny Hay's nephew, Bob Wah, came to John Day from Portland in 1940. With his assistance, Ing Hay began in the next year to practice once more. Bob later took over the herbal medicine business of his uncle in the early 1950s. In 1948, Doc Hay fell and broke his hip, so he moved to a nursing home in Portland for 4 years until he passed away.

In 1955, Bob Wah deeded the Kam Wah Chung and Co. Building and its contents to the City of John Day, as Ing Hay instructed with the provision that building be made into a museum, a monument to the contribution of the Chinese community of John Day to the development of eastern Oregon. The book mentioned that "For many years nothing was done." In 1967, the City found that it owned the building and its contents while surveying the land around this building to develop a city park. In 1973, the Kam Wah Chung and Co. Building was added to the National Register of Historic Places; the store opened as a museum in 1975. In 2005, The Kam Wah Chung Company site was named a National Historic Landmark.^[4]

The honor continued. In 2014, Robert Wah, M.D., the grandson of Bob Wah, was elected the 169th President of American Medical Association, the largest association of physicians in the United States.^[5] As one of the top leaders of medical profession, Dr. Robert Wah was the only one Chinese–American who once led this organization in its 173 years of history.

STORY ABOUT DOC HAY AS AN HERBALIST

The Kam Wah Chung and Co. (literally, the "Golden Flower of Prosperity") Building was a hub of the then Chinese community. Besides a Chinese medicine clinic, the building also was functioning as a grocery store, post office, social center, and even a Buddhism religion site. The number of Chinese in John Day at that time was roughly 2000, making it the third-largest Chinatown in the US at the time. However, later on, gold mines in the region had largely diet out, and the need of Chinese miners and laborers greatly decreased, so a majority of the Chinese population moved out of John

Day. There were fewer Chinese people later on in John Day. However, Kam Wah Chung and Co. not only just survived but also boomed. It was due to Doc Hay's fame of skillful practice that its influence was not only within the Chinese community but also among the non-Chinese patients throughout Oregon as well as many others from such states as distant as Alaska and Oklahoma.

The book authors respected Doc Hay as "Herbalist and pulsologist" and described his medical skills in pulse diagnosis and use of Chinese herbal remedies called "Herbal brew" in this book. Doc Hay was far more successful in treating the illnesses and injuries of the frontier than were the conventional physicians of his time. Some of his cures were truly remarkable, and some of the diseases with which he was so successful continue to defy medical practitioners even today. Doc Hay became very famous since he successfully treated blood poisoning (septicemia), meningitis, lumbago, mumps, colds, stomach ailments, hemorrhaging, and influenza. The book introduced that one-third of Doc Hay's patients were women who were suffering from complications resulting from childbirth or menstrual problems. He also sent herbs to the nonlocal patients through mail correspondence.

Most often, though, Hay prescribed herbs that were to be boiled into a broth. It is remembered that, at first, he would cook up the medicine right in the Kam Wah Chung and Co. Building. This required patients to remain in John Day so they could go down to Chinatown for their daily dose of medicine. In later years, he would prepare the prescriptions in packages so the patient themselves would boil up the brew at home. (P. 60)

Even now, the museum of Kan Wah Chung and Co. still collected over 500 varieties of herbs and other medications left by Doc Hay. It could be the most extensive collection of Chinese herbs and their products in the Western Hemisphere. The book chapter introduced several herbs and their clinical applications such as Ren Shen (人參 *Radix Ginseng*), Da Huang (大黃 *Radix et Rhizoma Rhei*), and Ma Qian Zi (馬錢子 *Semen Strychni*). During the exhibition of *On the Shelves of Kan Wah Chung and Co.*, I saw the raw herbs displayed like Wang Bu Liu Xing (王不留行 *Semen Vaccariae*), Ma Huang (麻黃 *Herba Ephedrae*), Ban Xia (半夏 *Rhizoma Pinelliae*), Ba Ji Tian (巴戟天 *Radix Morindae Officinalis*), and Chuan Xiong (川芎 *Rhizoma Ligustici Chuanxiong*). One scholar^[6] visited the Kam Wah Chung and Co. Museum and discovered some valuable herbs such as Ren Shen (人參 *Radix Ginseng*), San Qi (三七 *Radix et Rhizoma Notoginseng*), and Chen Xiang (沉香 *Lignum Aquilariae Resinatum*). This old herbal dispensary also contained some animal species included She Xiang (麝香 *Moschus*), Xiong Zhang (熊掌 *Ursidae*), Ling Yang Jiao (羚羊角 *Cornu Saigae Tataricae*), Qi She (蕪蛇 *Agkistrodon*), Wu Shao She (烏梢蛇 *Zaocys*), Ge Jie (蛤蚧 *Gecko*), Lu Rong (鹿茸 *Cornu Cervi Pantotrichum*), Yan Wo (燕窩 *Cubilose*), Mu Li (牡蠣 *Concha Ostreae*), Wu Ling Zhi (五靈脂 *Trogopterori Faeces*), and Ren Zhong Bai (人中白 *Calamitas urinae homimus*), the last one can never be seen now.

At the end of the book, there is an appendix of 62 types herbs which was intended as a sample listing of some more than five hundred different types of herbs and medications found in Doc Hay's collection. Those herbs were classified as Familiar herbs and medications, exotic herbs and medications, herbs used to treat wounds, abscess and sore, herbs used especially in the treatment of female ailments, and Miscellany (herbs used in treatment of variety of conditions and illness). In the category of wounds, abscess, and sore treatment, it listed Dong Kui Zi (冬葵子 *Malvae Fructus*), Shi Wei (石韦 *Folium Pyrrosiae*), Ba Dou (巴豆 *Fructus Crotonis*), Hu Huang Lian (胡黄连 *Rhizoma Picrorhizae*), Liu Ji Nu (刘寄奴 *Artemisiae anomalae Herba*), Qing Xiang Zi (青箱子 *Semen Celosiae*), and Zi Cao (紫草 *Radix Lithospermi*). In the book, it mentioned that many miners and laborers suffered from injuries and infection with abscess, so those herbs were listed as a special category.

A lot of listed herbs were related to draining water and reducing swelling, such as Gan Shui (甘遂 *Kansui Radix*), Dong Kui Zi (冬葵子 *Malvae Fructus*), Shi Wei (石韦 *Folium Pyrrosiae*), Da Ji (大戟 *Radix Euphorbiae*), and Ba Dou (巴豆 *Fructus Crotonis*) which are also poisoning with cautions. I am sure that Doc Hay had rich experiences in using those very strong action herbs. Interestingly, there were many herbs for parasite treatment such as Li Lu (藜芦 *Veratri nigri Radix et Rhizoma*), He Shi (鹤虱 *Fructus Carpesii*), Shi Liu Pi (石榴皮 *Pericarpium Granati*), Bian Xu (篇蓄 *Polygoni avicularis Herba*), and Shi Jun Zi (使君子 *Fructus Quisqualis*). Some herbs for skin itching and irritation were also listed, such as She Chuang Zi (蛇床子 *Fructus Cnidii*), Di Fu Zi (地肤子 *Fructus Kochiae*), Bai Bu (百部 *Radix Stemonae*), and Ku Shen (苦参 *Radix Sophorae Flavescentis*). Some herbs were external applicants such as Mu Jin Pi (木槿皮 *Hibiscus syriacus*), Peng Sha (硼砂 *Borax*), and Mang Xiao (芒硝 *Natrii Sulfas*). Many local herbs in southern China, different from common classical herbs, were used which mainly for activating blood circulation and removing stasis due to traumatic injuries such as Mian Hua Zi (棉花子 *Gossypium Herbaceum*), Feng Xian Hua (凤仙花 *Impatiens balsamina*), Zi Jin Pi (紫荆皮 *Cercis chinensis*), and Bi Ma Zi (蓖麻子 *Ricinus communis*). Thus, it was understandable that the common indications at that time in Kan Wah Chung and Co. were mainly trauma, skin lesion, swelling, and parasite infection, etc.

During his about 60 years of practice, Doc Hay faced some legal troubles and was alleged to practice medicine without a license. However, all three cases were dismissed by the court.

In 1905, Ing Hay was charged by local white doctors for practicing medicine illegally, yet one eyewitness said that there was no jury in Grant County that would convict him. The respectable local community, at least, accepted Hay and Lung On and wanted them to remain. Hay's nephew said that Hay never worried about malpractice charges: "They'd never convict him anyway... they tried him, but he has never done

anything wrong. They couldn't get any man to stand up against him, so he had no fear." (P. 66)

In his old bed in the Kam Wah Chung and Co. Building, the heirs and friends who cleaned up after his death found more than \$23,000 in uncashed checks from patients which were written between 1910 and 1930. How generous Doc Hay was!

STORY ABOUT DOC HAY IN COMBATING EPIDEMIC

The 1918–1919 influenza pandemic was the most severe disaster in the world history in the beginning of the 20th century. One-fifth of the world's population was affected by this deadly H1N1 virus. At least 50 million people had died worldwide, including approximately 550,000 in the United States.^[1] When this influenza appeared in the United States in the fall of 1918, many cities shut down their essential services. Pandemics typically unfold across a wide spectrum of communities that are diverse in race, ethnicity, age, gender, and socioeconomic means. However, young adults, under 40 years of age, were hit hardest who were severely impacted by infections, complications, and death.

The pandemic was widely spread to both urban and rural areas both in the densely populated East Coast and in the remotest part of Alaska. In Oregon, the situation was also serious. Death certificates held by the Oregon State Archives document thousands of influenza deaths from 1918 to 1919.^[7]

During that time in the John Day area of the eastern Oregon, the highway construction was on the progress, which connected the mountain passing through the north and southwest of the Grant County. It was tough work in that the roads were unpacked and dirt and it was extremely cold in winter, <22°F (Note: -22°F equals to -30°C) in John Day. People worried about the flu which could hit together with spring rains; thus, the road construction could be on hold for another year, then the funds would be exhausted.

It was inevitable that again this year the flu would strike among the road crew, and this it did. These laborers – who were forging the final transportation link between Grant County and Portland – were of a hardy and determined breed, many of them being former miners. They all knew that modern medicine was helpless before the flu. Medical doctors did not agree on the cause of the diseases and had no real treatment except to send the patient to bed and hope for the best. Many of them did not trust doctors, in any event, remembering the quacks who had followed the miners into the gold fields in the nineteenth century, and seeing the failure of doctors to prevent the thousands of deaths in Portland alone in the epidemics of 1918–19. (P. 1)

Doc Hay delightedly got involved in epidemic combating. He made a prescription and then personally boiled herbal decoction. When it was ready, he even delivered those herbal decoctions together with his partner Lung On to the working site for fellow laborers. The laborers were among the flu hit hardest age group and the road work project really relied on them.

When the flu got back to Ing hay and his partner Lung On in John Day, Lung On drove out to the work camps with Hay and his medicines. Ing Hay took along literally gallons of bitter herbal mixture which he warmed over stoves in the shabby shelters of the road crews. Trusting Ing hay from their own personal experience with his during previous illness, or from the wisdom passed down by their fathers, they drank the brew, although it smelled and tasted bitter. (P. 2)

We do not know the composition of the herbal formula, but we do know that it worked very well. Recently, it has become popular to take Chinese herbal teas or premade granules as prevention during the flu epidemic. However, Doc Hay was already practicing this way one century ago. It is clear that his herbal formula was not only effective for prevention but also for treatment. The book mentions, “*Though many of the men fell ill with the flu, none became bedridden and all continued to work.*” It is said that in the 1918 and 1919 flu epidemic, none of Doc hay’s patients and his community died. Thanks largely to Doc Hay and his “bitter brew,” the highway was completed in the schedule that was indeed good news to the eastern Oregon.

So, because of the two Chinese and the trust between them and the road crew, in the later February in 1920, the goods truck came up the long grade, and with it, the twentieth century came to Grant County, Oregon, in the form of a truckload of potatoes...The newly opened highway which now linked Grant County – with its economic at John Day and its county seat at Canyon City – with Portland. (P. 2)

During the epidemic, Doc Hay not only took care of his fellow Chinese community but also treated patients in the white community. One woman stated that Doc Hay successfully treated her, her mother, her aunt, and her brother during the first epidemic. She even wrote about Doc Hay’s successful treatment of meningitis to her another brother. From her introduction, we know that Doc Hay’s therapeutic methods were not limited to Chinese herbal medicine. He used a therapy like Guasha, “*He’d take a small white disc and go down the spine and all at once here would pop blood out of some place along the spine.*” We are not sure whether Doc Hay ever applied

acupuncture or moxibustion, but it is highly probable. It would be a big query if I could personally visit Kam Wah Chung and Co. Building in the future.

CONCLUSION

It was an amazing story about a Chinese herbalist Ing “Doc” Hay who effectively combated 1918–1919 influenza pandemics in the American West. During this pandemic, his community and patients survived and no one died from the deadly flu. Due to his success, he was famed of his practice not only in the local Oregon and Washington states but also in distant areas. It set a good reputation of Chinese herbal medicine even though it faced legal challenges. In the 21st century, it is unfortunately that practicing Chinese herbal medicine still has a bar for widely using even now in the historical pandemic of COVID-19 in America. Hence, it will have a long way to go for the legalization of Chinese herbal medicine in the United States.

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Conflicts of interest

There are no conflicts of interest.

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