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Eating to Survive: The Overlooked Reason for Beef Consumption in Japan, 1874-1912

Abstract

This article argues that there is ample solid evidence for the role of health concerns in the rise of beef consumption in Japan in the latter part of the nineteenth century. In particular, it discusses how the cholera outbreak of 1886 boosted beef consumption. Fear of the effects of plague led citizens in the Meiji era to seek out food that was, according to the science of the time, both nutritious and easily digested, leading to the development of a new set of values applied to food, including beef. Rather than seeing early beef consumption as only ostensibly medicinal, or as purely a matter of imitation of the West, as previous scholars have suggested, the author argues that beef consumption came to be perceived as a valuable prophylactic against cholera.

Keywords: Japan, Meiji, beef, plagues, cholera, health, diet

Introduction

It is commonplace to attribute the ostensibly dramatic rise in Japanese beef consumption in the nineteenth century to Westernization: to take this apparent upheaval in eating habits as simply a natural part of the process of Japan becoming “civilized” in the modern era. Moreover, narratives associating beef and civilization (*bunmei kaika*) are common in primary and secondary materials and continue to appear in tertiary materials concerning Japanese food culture published today.¹ The consensus among commentators, whose research has largely focused on elitist literature, is that the official encouragement of the consumption of meat, and in particular beef, was politically motivated. Meat consumption was supposed to “bolster the physique” of the Japanese population up to perceived Western levels: to make the labour pool and the military forces more robust as national assets.² Cwiertka has shown how this early beef consumption rested on the foundation of a tradition of consuming meat for medicinal purposes (*kusuri-gui*), and how “the rising interest in Western civilization and its achievements” endowed meat eating with “an aura of novelty and excitement.”³ The measure of Japanese

“weakness” according to Cwierka rested on a perception of the comparative superiority of the Western physique, and the motive for meat eating was largely a positive one: emulation. Noma, on the other hand, has concluded that medicinal eating came to be supported by “reasons” (*kotowari*) based on Western science, and sees this deference to science as representing a breakdown of the previous superstitious aversion to beef.⁴

What I wish to suggest, is that the view of the increase in beef consumption as principally a response to government propaganda and policies, with the ultimate aim of strengthening Japan’s workforce and military, needs to be modified to address another more immediate, individual, and practical reason behind the necessity for the average Japanese to stay, literally, strong. Moreover, we shall find in this reason, a more direct connection between beef consumption and Western science, than that posited by the attribution of the increase in beef consumption to the national interest, a decline in superstition, or “Westernization” for its own sake.

The background of eating beef for practical medicinal reasons, mentioned above, has not been studied deeply; scholarship has overlooked not only the early development of beef eating, but some scholars have even taken the further step of presuming that this medicinal eating was merely an “excuse” (*kōjitsu*) or a “nominal reason” (*tatemaie* or *meimoku*) for people to enjoy meat, or even to the extreme of attributing it to some Japanese people’s “inferiority complex” in terms of physique.⁵

Using newspaper coverage of daily activities associated with meat consumption and also advertisements for beef outlets during the Meiji period, this article will argue that, while there is not enough evidence to discount the possibility that some Japanese might have used “medicinal eating” merely as an excuse to enjoy meat, there were pressing concrete health concerns that clearly fueled meat consumption during the period, and, more particularly, that beef was being specifically chosen as one of the best protections against these threats.

This article will first outline the health concerns as they appear in primary sources from the period. Subsequently, it will show the correlation between these health concerns and beef consumption at the time. By looking at this context and the practices associated with it, this article hopes to re-evaluate the meaning of Japanese “weakness” and suggest another motive behind beef consumption. Furthermore, this article in describing the context of the health threat that led to the increase in beef consumption, will show a purely pragmatic motive behind the deference to Western science, rather than seeing it as playing a primarily symbolic role in the eradication of superstition. Lastly, this article will discuss how the pattern of beef consumption – whether it was consumed daily or only, when necessary – is best explained in terms of a response to the threat of disease. By examining the adoption of meat consumption in this broader context, the article hopes to provide a more nuanced account of what exactly constituted the motives behind Japan’s dietary “Westernization”.

From 1868 to 1912, for the 44 years of Meiji Tenno’s reign, the situation of beef consumption in Japan was complex and diverse. As Higashiyotsuyanagi has shown, both those promoting meat consumption and those resisting it were vocal during the period.⁶ On a national scale, some people were still resisting beef even into the Showa period.⁷ While we can see one pattern of consumption during the Meiji period consisting of the consumption of beef just a few times in a year, at the same time we can also see patterns of daily beef consumption, and, despite the often repeated anecdotes of beef needing to be cooked in the garden or outdoors, instances of beef being brought onto the dining table at home.⁸ Japanese consumption patterns – whether beef was consumed only sporadically or daily – serve as an indicator of the rationale for the consumption. Having beef daily may remind us of the anecdote of Natsume Sōseki tracking his physical measurements, clearly demonstrating his ambition to boost his physique.⁹ However, descriptions in advertisement show us other, more commonplace, reasons why

Japanese people consumed beef in the Meiji period.¹⁰ Due to the limits of space, this paper will mainly focus on the way beef was consumed for medicinal reasons, which followed a more occasional pattern, and the relevant background to this form of consumption. The way the Japanese public was educated about what to eat and what to avoid is also highly relevant to this background. Before looking at this medicinal eating, we need keep in mind that what counted as “Western knowledge” to the Japanese did not remain unchanged; with updates in knowledge, food preferences also changed during the period.

Medicinal Eating and Health Concerns

The well-known literature of the elite of the period relating to meat promotion reveals part of the background to the medicinal necessity for meat consumption. For example, we find the following in Fukuzawa Yukichi’s *On Meat Eating* written in 1870:

Human beings, as the lords of creation, eat all of the kinds of food, including the fruits of grains, plants, and trees, the meat of birds, fish, and beasts. This too is a matter of naturally endowed disposition, and if one turns against this disposition and eats only meats, or again, eats only the fruits of grains, plants and trees, then without fail one will fall into a state of physical weakness, be afflicted by unexpected diseases and die. ... Since ancient times, our nation of Japan has engaged in agriculture, and people have taken the five grains as their staple food, with meat being eaten only rarely, giving rise to a an [sic] nutritional imbalance in peoples' bodies, which naturally produced many ill and weakened persons.¹¹

As we shall see, Fukuzawa’s reference to proper nutrition as a safeguard against disease points towards a key concern of his period. Kanagaki Robun, author of the often-cited *Aguranabe*, wrote an advertising flyer sometime before 1871 that is also worth mentioning in this regard.¹²

Since 1796, [cattle] were pasturing in *Herukerei no chi*¹³ in Britain (to provide beef) only as complementary medicine for nourishing people's physical body. It is consumed by people from different countries and nothing else strengthens people so well.

In fact, advertisements in newspapers from the 1870s onwards encouraging meat consumption routinely bring forward the purpose of staying healthy. “Nourishment” (*jiyō*) and “strengthening health/recuperation” (*yōjō*) are keywords in the advertisements for beef and the people who consume meat are called *yōjōka*, a phrase combining *yōjō* with the suffix “*ka*” meaning “a person with a certain character or disposition.”¹⁴ Figs. 1 to 4 in Appendix I show the health-related phrases found in advertisements for the beef business between 1874 and 1912. The descriptions in the advertisements reveal that their target audience is people who consume beef to avoid weakness, since, as Fukuzawa mentioned, a weak person could be “afflicted by unexpected diseases and die.” As can be seen, beef advertisements repeatedly addressed the health concerns of the potential consumers. Apart from being recommended as a preventative, beef was also being provided to patients in hospitals, and recommended by doctors.¹⁵ This also echoes the news articles reporting that beef soup was being purchased by the prefectural hospital in Osaka, which later started to produce its own soup, using three catty of beef to one catty of water, for its patients.¹⁶ In Chapter 12 of the series *Aguranabe*, a *bushi* is recommended by a doctor, who had learnt Western medicine, to consume beef. This *bushi* is depicted as having beef with this awareness in mind. In real life, however, it could be that patients might not know what they were having. In 1894, a lady in a viscount's family was given beef as remedy for anemia by a military doctor. She was told that the meat was crane until after she had recovered.¹⁷

[Figure 5 here]

Advertisements also served as a medium promoting the health benefits of meat to the Japanese population. Fig. 5 shows an advertisement for beef soup and chicken soup from 1890. The copy reads: “Sickening and weakening are unavoidable natural destinies. ... While medicine only helps to reduce germs, patients need to be supplied with nutriment to be strengthened against weakness.”

So far, we have looked at the connection between beef and health concerns as it is reflected in primary sources from the Meiji period. In particular, advertisements from the period reflect consumers’ concerns at the time. In the next section, we will look at the specific background to these concerns and how it related to the actual consumption of beef.

The Correlation Between Beef Consumption and Epidemics

As we have seen, there is ample evidence for a link between beef consumption and health concerns. The background to these health concerns becomes clear if we consider how closely this consumption is related to the contemporary incidence of infections, and in particular cholera, a disease that threatened the Japanese population for decades and caused widespread deaths.¹⁸ The same newspapers carrying the advertisements mentioned above were simultaneously reporting the death tolls from these diseases, and emphasizing the need to stay healthy.¹⁹ In this section, we will first look at how beef was specifically recommended as a prophylactic, and then examine the correlation between beef consumption and epidemics as it is suggested by three indicators: 1) the number of advertisement for beef businesses that refer to health concerns, 2) the number of cattle being slaughtered monthly in Tokyo, and 3) a case study of the fortune of a famous beef outlet business in the Meiji period: Iroha.

[Figure 6 here]

The cholera outbreak in the Meiji period, in 1877, was the first there had been since 1858.²⁰ The Sanitary Bureau of the Home Ministry announced “The regimen that each person

should be aware of during the epidemic of cholera” (*Korera ryūkō no fushi kakuji chūi subeki yōjōhō*) on August 24 and notified other prefectures on August 27.²¹ It mentioned that people who had strong stomachs and intestines were rarely affected, but that the weak were more likely to fall ill. It also reminded people to pay attention to what they consumed, to keep the digestive system healthy by not overeating and to be aware of food poisoning. In particular, eating raw food and overeating would cause stomach and intestine problems such as diarrhea, which would lead to infection or contagion. Anyone with light diarrhea should immediately seek help from a doctor and recuperate. This regimen also gave guidance about what food would be best to consume: grains, fresh beef, veal, mutton, and chicken. Duck, wild goose, and pork contained a lot of fat, so they were “not preferable.” This regimen was printed in the *Yomiuri shinbun* on September 1 and 3.²² In this way, the mass media helped to educate a public that had achieved a certain level of literacy. However, the advice about paying attention to general health during a cholera outbreak was not new. In 1862, the magistrate’s office in Nagasaki had advised people “not to neglect health preservation during the cholera outbreak,” and asserted the importance of practicing “a healthy regimen gently” because “those who failed to do so would easily fall ill with cholera.”²³

[Figure 7 here]

The bar chart in Fig. 7 shows the number of cholera patients and the number of deaths from cholera in the Meiji era. Basically, there were cases throughout all of the recorded periods. The most severe cholera outbreak in the Meiji era was in 1879, causing 105,786 deaths out of 162,637 cases. The second severe one was 1886, with 108,405 deaths out of 155,923 patients. The line with squares in Fig. 7 shows the number of advertisements for beef mentioning health concerns as described in Appendix I. The number of advertisements follows the course of the cholera epidemic until the end of the 1880s. From these figures, at the very least, we can assume that up to that time, beef businesses were aware of the disease, and, therefore, promoted beef

as a means to stay healthy. In particular, a portion of the advertisements emphasized that beef products were being ordered by doctors and hospitals, as a way to promote the quality and effectiveness of beef in strengthening the body to resist the disease.

Beef as medicine was consumed in various forms. Apart from *gyūnabe* and canned beef, paste, miso, medicinal alcoholic drinks, pickles, various simmered dishes such as *Yamato-ni*, *Tsukuda-ni*, *Oboro-ni* and *Azuma-ni*, curry, soup, jelly, candy, peptone, essence, extract, powder and Musculosine were mentioned in the advertisements.²⁴ Street vendors (*tsujiuri*) selling stewed meat, including beef, on skewers were banned in 1876 in Tokyo for selling meat of unknown origin.²⁵ The official order on May 15, 1876 demanded that these street vendors return their licenses. (We are not able to confirm how strict the ban was and if there were subsequently any illegal street vendors.)

[Figure 8 here]

The consumption of beef remained very limited even after the severe cholera outbreak of 1879 in Tokyo. The first couple of waves of cholera did not much affect the number of cattle being slaughtered. However, the cholera outbreak in 1886 appeared to have a more significant influence on the consumption of beef. Fig. 8 shows the number of cattle being slaughtered in Tokyo from 1875 to 1889; the difference before and after 1886 is obvious. The number of cattle being slaughtered per month in Tokyo up to the early 1880s did not appear to be affected dramatically. Only a couple of hundred cattle were slaughtered in Tokyo per month, except for in June 1882, but after 1886, it increased to average more than a thousand. This trend in consumption is also reflected in the early development of a very famous *gyūnabe* restaurant chain: Iroha.

From the number of restaurants Iroha established, the timing of the proprietor's plans for further expansion, and the ultimate failure of those plans, we can observe that the chain's most successful period, 1885-1887, coincided with the second severe cholera outbreak in the

Meiji period. The line with circles in Fig. 7 shows the number of branches of Iroha during the period.²⁶ Iroha has been frequently used as a representative example of a prosperous *gyūnabe* business, but accounts of its extent vary.²⁷ By looking at the information gathered from the advertisements, which serves as written testimony given by Kimura's Iroha directly, we can see that the beef business enjoyed a prosperous period but that it did not last very long.

The first outlet opened in December 1881 selling mutton from sheep bred on government-run farms.²⁸ There was still only one outlet in 1882 selling beef and mutton in front of the gate of the Mita farm, which was a government-run breeding farm located in Shibaku. The advertisement also mentions that they expected the customers to come for the health benefits. In June 1885, Iroha opened another branch, and by the end of 1886, it had 5 outlets in total.²⁹ In the advertisements in January 1887 for the opening of another new branch, Kimura, the owner of Iroha, mentioned the goal of opening 48 outlets in total.³⁰ In a sense, this goal represents Kimura's assumption that beef was being accepted by the Japanese and that he and his family foresaw this practice would continue. In October 1887, an advertisement listed 10 locations.³¹ However, this momentum in beef consumption did not continue as expected. As Fig. 7 shows, the pace of growth started to slow down after 1888. Three more branches opened in 1888, two in 1889 and one in 1890.³² Here, Iroha's beef business achieved its pinnacle in terms of the number of outlets; 1891 was a complicated year in which Iroha opened two more branches but closed three.³³ An advertisement on November 30, 1891, mentioned only one was closing, and two others would move to the locations of two already operating branches.³⁴ Although no other notices of closure can be found, in an advertisement in 1892, one more branch disappeared, and it is missing from subsequent advertisements.³⁵

[Figure 9, 10 and 11 here]

Two advertisements on April 20, 1897, and on October 6, 1899, listed up Iroha branches that were running at that time.³⁶ We can observe that some branches shared the same phone

number or address, and that when no.20 opened, four branches in the list were actually closed. Also, the advertisement for the opening in 1899 was the last to list up the branches and mention the goal of establishing 48. The subsequent advertisements were much simpler, and the Kimura family appeared to be involved in other kinds of cuisine and in Japanese-style resort accommodation from the late 1890s. In 1903 an accommodation opened at the location of branch no.19, sharing the same address with the first mentioned above.³⁷ On August 27, 1913, an article reported that Kimura's Iroha was bankrupt and in debt for 100,000 yen.³⁸ Some outlets would be taken over by other beef businesses, and the article also mentioned the feasibility of others running a meat business using the Iroha brand.

Iroha has been frequently mentioned as a prosperous beef business in the Meiji period, to a degree that the situation may be overestimated. Beef businesses in the Meiji period were not as promising and prosperous as has been suggested. Two beef outlet owners committed suicide, in 1887 and 1902, and two outlets of Yonekyū, one of the top 5 beef business brands at the time, were seized by bailiffs in 1891.³⁹ In fact, Yokoyama reports that the net profit of beef butchers and retailers declined by a half after 1879 and there was a plummet in the number of beef businesses in 1881.⁴⁰ The business environment was tougher for business owners than scholarship has claimed. Iroha's prosperity was evidently boosted by the outbreak of cholera in 1886, and we see significant growth in 1886 and 1887; the number of outlets rose from 2 in 1885 to 10 in 1887. However, from then on, the business did not grow as much as the Kimura family had expected.

We have seen how the number of cattle being slaughtered in Tokyo, and the trend in the prevalence of beef advertisements emphasizing health, strongly suggests that early beef consumption was closely related to the cholera outbreak of 1886. To this we may now add the evidence of the fortunes of a prosperous beef business (Iroha), the popularity of which appears to have also been boosted by the epidemic. It might be argued that the promotion of beef by

the Meiji Government had started much earlier; the Meiji Tenno started to adopt beef and mutton in 1872. However, one should not forget the cholera outbreaks before Meiji, and, in particular, the severe one of 1858. Kanagaki Robun, who wrote *Aguranabe* to encourage the consumption of beef, also wrote a book called *Ansei korori ryūkōki* (Chronicle of the Ansei Cholera Epidemic) about the situation during the epidemic in 1858. The Japanese elite was living with the aftereffects of the epidemics in the Ansei period, and there was the threat of cholera on the mainland of Qing.⁴¹ Nevertheless, as we can see, early beef consumption was very limited. This is indicated not only by the number of cattle being slaughtered, but also by the fact there was a surplus of beef being donated to the poor and, in one case, to a prison up to 1880.⁴² We have found a total of 11 articles about beef donation.⁴³ The amount of beef being donated varied with the donation; ranging from 36kg to 120kg. After 1880, articles about other resources being donated still appear, but there is no longer any mention of beef according to the search results.

Meat Consumption as a Substitute

There is another link between the cholera epidemics and the consumption of beef, which we have not yet considered. This was the consumption of beef, among other protein sources, as a substitute for fish. There was a widespread belief in Japan that, since the source of cholera infection appeared to be water, it could also be caught by eating fish. On October 1, 1879, the news reported that beef restaurants in Kyoto were doing good business because the import of sea fish was prohibited, only freshwater fish were available, and the consumption of beef was being recommended.⁴⁴ There were beef outlets selling the equivalent of four to five cattle's worth of beef in a single day.⁴⁵ On June 2, 1882, a temporary report issued by the Sanitary Bureau of the Home Ministry mentioned that two thirds of the patients in Yokohama were infected because they had eaten tuna sashimi.⁴⁶ The pattern of citizens' meat consumption also reflected people's awareness of the connection between cholera and fish. On June 26, 1886,

the *Yomiuri shinbun* reported the influence of cholera on business.⁴⁷ The price of fish had gone down by 30% and there was a low demand. Tempura and sushi were unmarketable, shellfishes being the worst. While the price of eggs increased by 30%, and beef and fowls by 20%, they were in high demand. On September 5, 1890, the *Asahi shinbun* reported that people were being careful not to consume fish since the cholera outbreak. Instead, they had fowls and beef as substitutes.⁴⁸ A police officer in 1912 explained that they realized that quite a lot of confirmed cases were associated with the consumption of raw Japanese anchovy, or sashimi made from tuna and bonito. However, they had no clue how these fish had become contaminated. It could have been in the sea, fishing grounds, riverbanks, or fishmongers. Since other types of fish might also get contaminated by the bacteria, avoiding fish was suggested to be a way to avoid cholera.⁴⁹ This paradigm of consumption – avoiding fish but consuming meat, including beef, as a substitute – can be observed from the Meiji period to the Taisho period.⁵⁰

Unfortunately, there is not enough evidence to show precisely when Japanese people started to avoid fish and turn to meat during the cholera period. However, this pattern is one more element that must be taken into account when explaining the increase in meat consumption in the late Edo period.⁵¹ In particular, not only the official notices recommending people to avoid fish and seafood, but also diaries and literature show that the Japanese population were aware of the connection between cholera and fish consumptions, despite perhaps not being aware of the nature of the disease itself.⁵² A couple of diaries recorded that there were rumours attributing cholera to poison released into the sea by foreigners.⁵³ To eat fish was to risk possibly fatal poisoning; sardines were avoided and the price of vegetable and egg increased in 1858.⁵⁴ Cholera terrorized Japan with its rapid lethality; this can be seen in the name the Japanese gave it: “three-days cholera” (*mikka korori*). Nevertheless, people who had this understanding might avoid a very important protein source – fish and seafood – thereby further contributing to the weakness that made contracting the disease more likely.

The writings themselves reveal how people's fear of death provided a practical reason for meat consumption. Medicinal eating was not merely used as an "excuse" for such consumption; neither did it arise simply from an "inferiority complex" in relation to Western people. In fact, apart from cholera, other plagues such as influenza and measles also struck in the Edo period, the influenza of 1716 also causing widespread death.⁵⁵ Japanese people had highly practical reasons to practice medicinal eating.

The Influence of Science on Food Preferences

So far, we have examined how beef consumption was associated with infections, especially cholera, and we have also seen how the avoidance of fish boosted meat consumption. As mentioned above, veal and beef were being recommended by the government as some of the best meats to consume in a health regimen. In this section, we are going to look at how advances in scientific knowledge in Japan at the time shaped choices in meat and, in particular, the preference for beef.

Earlier we looked at "The regimen that each person should be aware of during the epidemic of cholera" issued by the Sanitary Bureau of the Home Ministry in 1877. It advised people to "keep the digestive system healthy" because "those who have strong stomachs and intestines are rarely affected." (Another article, published later in the month, criticized those who were overeating meat and fish in order to stay healthy, and suggested they should practice moderation.⁵⁶) The "Outline of cholera treatment" (*Korera chiryōhō gairyaku*), which was written in 1877 by Dr. Erwin Baelz, who taught at the medical college of Tokyo Imperial University, advised people, at the request of the Home Ministry, to mind factors such as food that would harm the intestines and weaken the body.⁵⁷ These factors were not direct causes of infection, but people would easily get infected if their intestines were weak. The advice "not to harm the stomach and intestines" was repeated in official documents in the Taisho period as well.⁵⁸ Whether the food was digestible was a substantial concern. These official documents,

educating the public about how to remain healthy during the epidemic, advised against eating food that was not digestible and recommended choosing what was soft and easily digested.⁵⁹ When it comes to meat, it was suggested to eat what was fresh and tender.⁶⁰

[Figure 12 here]

Fig. 12 is a broadside titled “List of preventive methods for cholera” created by a commoner (*heimin*) in Tokyo. It was sold in Yokohama in 1886 during the cholera epidemic.⁶¹ White circles indicate the nourishing foods that would be digested in two to four hours. The foods with black circles are considered to be indigestible as they take five to ten hours to digest. In point no.16, it says: “You should select whatever food is easy to digest to eat and try to avoid those that are not digestible as much as possible. As this table indicates, food that takes more than five hours to digest will harm your body. The reason is that the food will decay in your body with your body temperature, and this becomes the origin of various illnesses. And the ‘bad air’ (*akki*) released by the decayed food from the body combines with the ‘bad air’ in the air to become the origin of infections.” The reasoning was not scientifically accurate from a modern point of view, but the attribution of the infection to putrid odors (the “miasma theory”), before the cholera bacteria was discovered in 1883, was up to date science from the viewpoint of the time.⁶² Nevertheless, the broadside serves as anecdotal evidence showing an awareness of the connection between infection and digestible food among Japanese citizens. Another indication of this awareness was the trend that we can observe from Fig. 1 to Fig. 4 in Appendix I: advertisements for and articles about shops or outlets of beef and beef products with copy related to medicinal benefits. There were more processed beef products, such as beef essence, jelly, extract, Peptone, etc. advertised in the late Meiji period. Some advertisements promoted this form of beef consumption as “an artificial way to digest.”⁶³ When it came to beef that was tough, the demand for it as food was low, and one article described it as “not edible” (*shokuyō ni tekisezu*).⁶⁴

Given that the increase in beef consumption had this practical – medicinal – reason behind, it is unsurprising to find that it reflected the scientific opinion of the time. In the early stages, the science was simply a matter of the observation of flatulence and excreta. In 1874, an article published in the *Yomiuri shinbun* about preserving health explained that there was evidence showing that meat from fowls and animals was more digestible as it formed less excreta.⁶⁵ Flatulence released from the body was also considered. A reader's opinion by Tsuji Rokuemon in 1875 mentioned that Westerners did not release gas as frequently as Japanese did.⁶⁶ He attributed this to the high consumption by Japanese people of indigestible vegetables such as burdock, tubers, wheat rice, etc. that did not form blood and flesh but passed directly as faeces and gas. On the other hand, Westerners consumed beef and meat and eggs that did form blood and flesh, which is why their bodies were stronger and less of them fell ill.⁶⁷ This appears to have become a widespread belief among the Japanese elite, arrived at through the observation of Europeans living in the settlements.⁶⁸ Furthermore, the Japanese did not only passively receive knowledge: they also initiated experiments to find out which meat would serve them best in a comparative way. In 1883, Nagano prefecture implemented a human experiment, using three criminals who had been sentenced to death, to research into the comparative nourishment of beef, egg, and loach.⁶⁹ Each was given one nourishing food for a week before the execution and their bodies were examined through dissection. The result was that loach proved to be the best, then beef, and then egg. Although the setting and the standard of evaluation adopted in this experiment are not explained in the report, it showed an endeavor on the part of the Japanese to learn about the nourishing content of food scientifically. Another occurrence that showed a similar aspiration was that data was presented in newspapers accompanied by more scientific evidence, such as the nutritional content of different foods. For example, Fig. 13 shows an article from July 12, 1884, in the *Asahi shinbun* that described the nourishment (*jiyō shitsu*) provided by beef, mutton and pork in a table through a comparison

of their relative composition. Based on the scientific comparison, the article concluded that beef was the best meat. In this way, the background epidemic in combination with the new scientific knowledge contributed to the formation of Japanese food preferences.

[Figure 13 here]

So far, we have looked at specific health concerns in the Meiji period, how beef was being suggested as a preventative, and the way in which the frequency of beef advertisements referring to health concerns, the number of cattle being slaughtered, and the number of branches of Iroha opened all reflect a connection between beef and consumption and cholera in 1886. We have also looked at the way in which beef served as a substitute for fish, and the way in which new scientific knowledge supported this medicinal eating, shaping not only Japanese food preferences, but also the preference for certain textures of beef. It still remains to compare occasional beef consumption for medicinal purposes with the practice, widely commented on by previous scholarship, of regular beef consumption intended to contribute to the strengthening of the nation.

The Motivation Reflected by the Consumption Patterns

Alongside the meat consumption associated with plagues explained above, descriptions found in the *Yomiuri shinbun* and *Asahi shinbun* associating meat consumption with nationalism appeared in the 1880s, urging people to consume meat more frequently, and starting to refer to meat (or beef) as a daily food. This appears to be the beginning of the process of medicinal beef consumption gradually transforming into daily consumption. For example, a reader's contribution titled "To cultivate the foundation of the nation" (*kokuhon o baiyōseyo*) in 1885 encouraged people to consume meat at least once every two days during winter.⁷⁰ This article pointed to the size of Japanese bodies, arguing that they were once bigger but gradually diminished as succeeding generations increasingly came to avoid consuming meat. In order to strengthen the military force to rival those of Western countries, it concluded, improving the

physique was crucial. Other examples, such as an article introducing good beef sold by Nakakawa-ya, refers to beef as a daily food.⁷¹ Selling beef at a reasonable price came to be seen as a contribution to society.⁷² As early as 1867, a proposal for animal husbandry suggested that soldiers especially should consume beef every day.⁷³ In order to achieve the standard of physique to best serve the nation, good daily nutrition was required. In this way, it is different from the paradigm of medicinal consumption, which entailed consumption of a certain diet only when necessary.⁷⁴ The regular consumption of beef, rather than having it medicinally only when necessary, is more related to bolstering the physique for the sake of the nation (what Tatsukawa refers to as *eiyo rikkoku*: “nutrition-based nation building”).⁷⁵

One consumption pattern that shows Japanese beef consumption was more inclined to medicinal eating than to the nationalistic demand is that a significant number of beef restaurants turned into ice shops in summer and turned back to the beef business in winter. For example, in 1885, 47 ice shops turned into beef businesses in Hongō-ku.⁷⁶ This business model can also be observed from the Meiji period to the Taisho period. Beef restaurants did not do much business in the warmer seasons.⁷⁷ This echoes the study of the consumption pattern of a family belonging to the consumer class in Osaka.⁷⁸ The family bought beef three times in 1875: between November and January. This pattern is reasonable not only because meat might go off quickly in summer, but also because it was indeed uncomfortable to have *gyūnabe* next to a fire during summer back in the days before refrigerators and air-conditioning. In general, Japanese people had to wait for advances in technology before turning to beef as a daily food. This foundation was not yet laid in the Meiji period.

Conclusion

Hitherto scholarship about beef consumption in the Meiji period has asserted a strong association between that consumption and Japan’s Westernization, focusing on the aspect of

the government's desire to build up the nation in the face of potential threats from abroad. This overlooks the invisible but lethal enemy much closer to the individual Japanese citizen: disease. Since this side of the history has not hitherto been examined in depth, meat adoption for health reasons has often been considered as an "excuse" or a "nominal reason" and scientific knowledge perceived merely as a tool for breaking down superstition. As McNeil reminds us in *Plagues and Peoples*, the relationship between humans and infectious organisms has often been a decisive influence on social change, and, as Milward has asserted, "the Japanese felt they had something *useful* to learn from the West, especially in matters of science and technology" (my emphasis).⁷⁹ Japanese medicinal eating, and the urgent need to apply this practice in the face of epidemics, is a topic that is worth deeper study. As we have seen above, during the Meiji period, Japan was afflicted by cholera: a lethal threat, that killed thousands. Beef consumption, for medicinal purposes, was particularly boosted by the outbreak in 1886. Beef was introduced as superior to other meats in terms of nutritional content. Cholera, as an infection that spread by water, led to a decline in the consumption of fish and other seafood, since their consumption was discouraged or even prohibited during the epidemic. Beef consumption was, therefore, further boosted as a substitute for fish and other seafood. The contemporary state of knowledge led the Japanese to be deeply concerned with how digestible a food was: the extent to which it would not weaken the stomach and intestines. Here, the preference for selecting tender beef appeared, as tough beef was considered inedible. Western science introduced a whole new set of values into Japanese thought in terms of food's nutritional content and its digestibility.⁸⁰ It was this newly-bestowed value that allowed beef to begin its ascent from defiling to valuable.

Both the adopting of beef to boost the physique up to a level perceived as typical of Westerners and the consuming of beef to ward off disease affected the frequency of Japanese beef consumption. However, there is a gap between the standard applied when measuring

Japanese people's weakness in terms of the role beef could have in improving the physique and the standard being applied when this weakness related to resistance to lethal disease: the threshold between "strength" and "weakness" in the two cases is not the same. Apart from associating beef with novelty and excitement, there was a more serious and practical side to beef consumption: fear of death. Japanese people adopted the most advanced science available at that time in order to survive and to stay healthy. In this sense, perhaps the aspect of "Westernization" involved in the adoption of beef in Japan can be seen not as an end in itself but rather, almost as a by-product of concerns that had nothing to do with simply blindly imitating the West as has sometimes, rather patronizingly, been suggested. Though later – in the form of "building up" the nation – beef consumption did become more a matter of seeking to rival the West through conscious imitation.

Acknowledgement

To be added later.

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¹ The opinion that meat, in particular beef consumption is associated with Westernization can be seen throughout materials published in the 21st Century. For examples of secondary scholarly materials, see Cwiertka, *Modern Japanese Cuisine*, 33–34; Hashimoto, *Shokutaku no Nihon shi*, 206–7; Ishige, *Nihon no shokubunkashi*, 185; Kuboi, *Zusetsu shokuniku shuryō*, 136–41; for tertiary materials, see: Hatanaka, *Fasshon fūdo, arimasu*, 14–15; Hatanaka, *Karisuma fūdo*, 45–9; Nagayama, *The Cultural History*, 74; Nagayama, *'Wa no shoku' zenshi*, 279–80.

² Cwiertka, *Modern Japanese Cuisine*, 24; Ishige, *Nihon no shokubunkashi*, 175; Tatsukawa, *Yamai to kenkō*, 145.

³ Cwiertka, *Modern Japanese Cuisine*, 33.

⁴ Noma, 'Kindai Nihon niokeru nikushoku juyō katei no bunseki', 85.

⁵ Majima, 'Eating Meat, Seeking Modernity', 100; Describing medicinal eating as an excuse or a nominal reason can be found in modern scholarship about meat or beef consumption from the Edo period to the Meiji period; see Harada, *Rekishi no naka*, 290–91; Noma, 'Kindai Nihon niokeru nikushoku juyō katei no bunseki', 85; Ishige, *Nihon no shokubunkashi*, 181; Rath, *Food and Fantasy*, 102.

⁶ Higashiyotsuyanagi, 'Ton katsu to sukiyaki', 210-216.

⁷ For example, see Seijō Daigaku, *Nihon no shokubunka*, 48.

⁸ Higashiyotsuyanagi, 'Ton katsu to sukiyaki', 208; Ishige, *Nihon no shokubunkashi*, 186; Nakanishi and Futaya, *Kindai Nihon no*, 154–55. An article from 1907 about the change in perspective on beef testifies that no one feels dubious about seeing beef on the dining table day or night. "Inshokubutsu nitaisuru shisō no henshen." *Asahi shinbun*, December 17, 1907, morning edition, p.5.

⁹ Tatsukawa, *Meiji iji ōrai*, 29, 31-33.

¹⁰ For example, an advertisement about beef consumption for sea voyages; see: *Yomiuri shinbun*, May 9, 1878, morning edition, p.4.

¹¹ Fukuzawa, "'On Meat Eating' (1870)."

¹² There is no year written in the advertisement, and the article sharing this advertisement only mentioned that it was from around the first year of Meiji. However, since the price was written in the old currency, we can assume that it was written before 1871; see Uchida, 'Meiji shonen goro no gyūniku uridashi hirō bun.'

¹³ I was unable to confirm the location mentioned by Kanagaki. It was written in Katakana as "*Herukerei no chi*." It may possibly be a reference to Herefordshire. Hereford cattle were exported worldwide, beginning in the 1810s.

¹⁴ For the example of *yōjoka*, see "Ko Morita Kanya zatsuwa (sono8)." *Asahi shinbun*, September 1, 1897, morning edition, p.5; Kaneko, *Tōkyō shin hanjōki*, 158.

¹⁵ See Fig. 2.

¹⁶ *Asahi shinbun*. March 17, 1881, morning edition, p.3.

¹⁷ "Kokushu, himegimi ni kakuniku o susumu." *Yomiuri shinbun*, February 23, 1894, morning edition, p.3.

¹⁸ See the bar chart in Fig. 7.

¹⁹ See Fig. 6.

²⁰ Yamamoto, *Nihon korera shi*, 26. There was a suspected cholera outbreak in 1862, but it is not confirmed. However, we also see scholarship referring to a cholera outbreak in 1862.

See Gramlich-Oka, 'The Body Economic,' 33. Apparently, Japan took precautions regarding the cholera outbreak on the mainland. For example, "The regimen for cholera" (*Korera yōjōhō*) was issued by the magistrate's office in Nagasaki in 1862, clearly mentioning the outbreak in Shanghai. See also Yamamoto, *Nihon korera shi*, 671.

²¹ Yamamoto, *Nihon korera shi*, 672-3

²² "Naimushō eiseikyoku hōkoku dai go gō." *Yomiuri shinbun*, September 1, 1877, morning edition, p.1; "Naimushō eiseikyoku hōkoku dai go gō." *Yomiuri shinbun*, September 3, 1877, morning edition, p.1.

²³ Yamamoto, *Nihon korera shi*, 671.

²⁴ See Appendix I.

²⁵ For the report about *tsujiuri*, see Noma 'Kindai Nihon niokeru nikushoku juyō katei no bunseki', 78, 81-2; Noma, 'Indigenous and Introduced,' 397. See also, "Kō dai san jū ichi gō" *Yomiuri shinbun*. May 16, 1876, morning edition, p.1; Yokoyama also discovered that *tsujiuri* were banned in 1876; for more details about licenses to sell beef, see Yokoyama, 'Tojō o meguru hitobito,' 62–63.

²⁶ The dotted line indicates a time gap in the data.

²⁷ Kuboi, *Zusetsu shokuniku shuryō*, 137-8; Narisawa and Narisawa, 'Shokuniku sangyō no tenkai', 291; Hashimoto, *Shokutaku no Nihon shi*, 214-215; Yokoyama, 'Tojō o meguru hitobito,' 54. One source claimed that it opened up to 20 branches, another mentioned that there were 16. The recent article by Mitsuda mentioned it had 22 outlets; see Mitsuda, 'From Colonial Hoof to Metropolitan Table', 3.

²⁸ *Yomiuri shinbun*, November 1, 1882, morning edition, p.4.

²⁹ *Yomiuri shinbun*, September 23, 1886, morning edition, p.4; *Yomiuri shinbun*, December 24, 1886, morning edition, p.4.

³⁰ *Yomiuri shinbun*, January 28, 1887, morning edition, p.4.

³¹ *Yomiuri shinbun*, October 20, 1887, morning edition, p.4.

³² *Yomiuri shinbun*, November 29, 1888, morning edition, p.4; *Yomiuri shinbun*, April 2, 1889, morning edition, p.4; *Yomiuri shinbun*, November 5, 1890, morning edition, p.4.

³³ *Yomiuri shinbun*, September 18, 1891, morning edition, p.3; *Yomiuri shinbun*, November 30, 1891, morning edition, p.4.

³⁴ See Fig. 9.

³⁵ *Asahi shinbun*, July 20, 1892, morning edition, p.6.

³⁶ See Figs. 10 and 11. From 1893 to 1896, we do not see any advertisements in the *Asahi shinbun* and *Yomiuri shinbun* search results.

³⁷ *Asahi shinbun*, October 15, 1903, morning edition, p.4. Since a book about Kimura shōhei published in 1908 kept this no.19 in the list of Iroha outlets, and the advertisement of the opening itself did not mention this branch had closed, we still count this outlet in the figure; see Matsunaga, *Kimura sōhei kun den*, 28.

³⁸ “Iroha tsuini heiten.” *Yomiuri shinbun*, August 27, 1913, morning edition, p.3

³⁹ “Kubikukuri hakken.” *Yomiuri shinbun*, June 17, 1887, morning edition, p.2; “Gyūnikuten no kaiso Nakagawa rō shujin no awarenaru jisatsu.” *Yomiuri shinbun*, May 10, 1902, morning edition, p.4; “Yonekyū no heiten.” *Asahi shinbun*, October 14, 1891, morning edition, p.3; “Yonekyū no shiten mo mata heiten.” *Asahi shinbun*, October 24, 1891, morning edition, p.3.

⁴⁰ Yokoyama, ‘Tojō o meguru hitobito,’ 73.

⁴¹ Regarding Japanese consciousness of these mainland outbreaks, see note 20 above..

⁴² After 1880, there was no donation of beef in the search results, but we see articles about donations of other resources.

⁴³ *Yomiuri shinbun*, January 24, 1876, morning edition, p.2; *Yomiuri shinbun*, February 2, 1876, morning edition, p.1; *Yomiuri shinbun*, January 27, 1877, morning edition, p.3; *Yomiuri shinbun*, January 29, 1877, morning edition, p.3; *Yomiuri shinbun*, February 12, 1877, morning edition, p.2; *Yomiuri shinbun*, February 21, 1877, morning edition, p.3; *Yomiuri shinbun*, April 25, 1877, morning edition, p.3; *Yomiuri shinbun*, April 30, 1877, morning edition, p.2; *Yomiuri shinbun*, October 8, 1877, morning edition, p.3; *Yomiuri shinbun*, February 20, 1879, morning edition, p.2; *Yomiuri shinbun*, December 28, 1880, morning edition, p.3.

⁴⁴ *Asahi shinbun*, October 1, 1879, morning edition, p.1.

⁴⁵ Ibid.

⁴⁶ Yamamoto, *Nihon korera shi*, 518. It also mentioned that many tuna went rotten. This is more likely a speculation, since the cholera bacteria only become widely recognized after 1883. Before that the route of the infection was unknown; one discussion that appeared in Japan attributed the infection to uncleanness, the smell from the toilet, and putrid odors. See also Yamamoto, *Nihon korera shi*, 520. It was generally agreed in Europe at the time that cholera was caused by bad odors (“miasma”).

⁴⁷ “Shikyō.” *Yomiuri shinbun*, June 26, 1886, morning edition, p.2.

⁴⁸ “Ushi ni tori.” *Asahi shinbun*, September 5, 1890, morning edition, p.4.

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- ⁴⁹ “Gyoniku to korera.” *Asahi shinbun*, October 4, 1912, morning edition, p.5.
- ⁵⁰ Ibid.; “Koeki to gyūniku.” *Asahi shinbun*, November 24, 1912, morning edition, p.4.
- ⁵¹ According to Harada, mentions of the meat business increased from the Bunka to Tenpō period (1804-1844). See: Harada, *Edo No Shokubunka*, 71; Gramlich-Oka, ‘The Body Economic,’ 33. The first cholera outbreak in Japan, in 1822, happened within this period.
- ⁵² Kanagaki, *Ansei korori ryūkōki*, 29–30; 76-7; Gramlich-Oka, ‘The Body Economic,’ 60; Yamamoto, *Nihon korera shi*, 671. One official document also proves that the government expected there might be difficulties for the people living around the seacoast and relying on fish and seafood if there was a restriction. The document suggested that there should not be strict restrictions on fresh fish and seafood. See also: Yamamoto, *Nihon korera shi*, 673.
- ⁵³ Satō gives an account of Japan under the threat of cholera using descriptions collected from diaries. Two diaries recorded the rumor about foreigners releasing poison; see Satō, *Bakumatsu ishin no*, 23–6.
- ⁵⁴ Satō, *Bakumatsu ishin no*, 30.
- ⁵⁵ Shimizu mentions that written evidence of the beast market returned to popular publications in the 1730s, Shimizu, ‘Meat-Eating in the Kōjimachi District of Edo,’ 99.
- ⁵⁶ *Yomiuri shinbun*, September 24, 1877, morning edition, p.3.
- ⁵⁷ Yamamoto, *Nihon korera shi*, 675.
- ⁵⁸ Ibid, 690-2.
- ⁵⁹ Ibid, 667, 670-1, 678, 684, 692.
- ⁶⁰ Ibid, 678.
- ⁶¹ Kiuchi, *Ijin kinjōi*, 65. The broadside itself does not have page numbers but it was between pp.64-5.
- ⁶² Yamamoto, *Nihon korera shi*, 520. See also note 46.
- ⁶³ For example, see the advertisement for Peptone in *Yomiuri shinbun*, February 17, 1896, morning edition, p.6.
- ⁶⁴ “Aomori chihō no seigyū.” *Yomiuri shinbun*, November 8, 1894, morning edition, p.5; “Taihoku no bokuchiku.” *Asahi shinbun*, May 26, 1897, morning edition, p.2.
- ⁶⁵ *Yomiuri shinbun*, November 22, 1874, morning edition, p.2.
- ⁶⁶ Tsuji Rokuemon. *Yomiuri shinbun*, August 25, 1875, morning edition, p.2.
- ⁶⁷ The original lists “beef” and “meat” separately.
- ⁶⁸ “Korerabyō yobō kanai kokoroe tsuzuki.” *Asahi shinbun*, July 21, 1895, morning edition, p.2. This article mentions that the European living in the Yokohama settlement very rarely got cholera.

⁶⁹ *Yomiuri shinbun*, July 31, 1883, morning edition, p.3.

⁷⁰ Mokushi, 'Kokuhon o baiyōseyo'.

⁷¹ "Ryō gyūniku." *Yomiuri shinbun*, October 16, 1885, morning edition, p.3.

⁷² *Yomiuri shinbun*, March 10, 1889, morning edition, p.4.

⁷³ Tatsukawa, *Meiji iji ōrai*, 39. Another of Tatsukawa's works asserts that the health of the Japanese people is a national interest, which blurs the boundary between having beef as medicine and having beef daily to boost the physique; see Tatsukawa, *Yamai to kenkō no aida*, 145. The author agrees that protecting people from lethal disease is also a way to avoid harming the national interest. However, when this choice - whether to consume beef or not - was handed over to individuals, not everyone wanted to be as healthy as the ideal the Meiji government promoted for the nation. For an anecdote about an individual who claimed that she did not want to be as healthy and smart as Westerners, see Higashiyotsuyanagi, "Ton katsu to sukiyaki", 208-209. Since these two reasons both affected the consumption pattern of beef, here we separate staying healthy from strengthening the body for the national interest.

⁷⁴ Because of limited space, I do not discuss cases where beef needed to be consumed on a daily basis for a much longer period as medicinal eating because of chronic disease; for example, among patients with tuberculosis.

⁷⁵ Tatsukawa, *Meiji iji ōrai*, 36-8.

⁷⁶ "Ushiya no zōka." *Yomiuri shinbun*, October 3, 1885, morning edition, p.2. For other articles reporting the seasonal nature of the beef business, see: "Robō no gyūnikuten." *Asahi shinbun*, October 8, 1886, morning edition, p.1; "Saiban no shichū." *Asahi shinbun*. December 29, 1900, morning edition, p.5; "Natsu to shokugyō no henka." *Yomiuri shinbun*, August 3, 1911, morning edition, p.3; "Keishichō wa kaku torishimari ore ri." *Yomiuri shinbun*, July 8, 1914, morning edition, p.7.

⁷⁷ "Shichū shōka no keikyō." *Asahi shinbun*, December 28, 1885, morning edition, p.3; "Chūgen to yaburi." *Asahi shinbun*, July 16, 1898, morning edition, p.5.

⁷⁸ Nakanishi and Futaya, *Kindai Nihon no shōhi to seikatsu sekai*, 154-55.

⁷⁹ McNeill, *Plagues and Peoples*; Milward, *Understanding the West*, 1.

⁸⁰ Tatsukawa mentions that the Japanese judged the quality of food by the nutritional content; see Tatsukawa, *Meiji iji ōrai*, 38. As we have seen, digestibility is also key when it comes to this judgement.

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Key: A: *Asahi shinbun*; Y: *Yomiuri shinbun*; M: morning edition; S: Separate print; SS: Supplement Section; Number: page number

Fig. 1 Advertisements for and articles about shops or outlets of beef and beef products with copy related to medicinal benefits from 1874 to 1879

Date	Product / dish	Key phrases / sentence related to health concern
18760915(YS4)	beef paste, chicken paste	Nourishment
18761110(YM3)	life nourishing beef-shu	Life nourishing
18780509(YM4)	beef paste, chicken paste	nourishment; nourishes the spleen and stomach and increases energy; when the old and weak have it frequently, it must strengthen them and make them healthy; the greatest medicine for longevity
18780611(YM4)	beef paste, chicken paste	Nourishment
18780707(YM4)		
18781211(YM2)	beef and soup (hawker)	for medicinal purpose
18790118(YM4)	beef paste, chicken paste	Nourishment
18790219(YM4)		
18790313(YS4)		
18790330(YM4)	<i>oboro ushi</i>	Nourishment
18790411((YM4)	beef <i>oboro</i>	replenish mind and soul when one is weak; help energize the old and weak; Improve internal conditions for postpartum weakness; energize one's weakness after sex; energize children when they are weak; nourishment
18790423(YM4)	beef paste, chicken paste	Nourishment
18790510(YM4)	<i>oboro Ushi</i>	nourishment; even edible for those with weak teeth
18790530(YM4)	beef paste, chicken paste	Nourishment
18790909(YM4)		
18791118(YM4)		
18791228(YM4)		

OLD
Updated version
Global F

Fig. 2 Advertisements for and articles about shops or outlets of beef and beef products with copy related to medicinal benefits from 1880 to 1889

Date	Product / dish	Key phrases / sentence related to health concern
18801117(YM4)	beef picked in sake lees	the effect of it as nourishment is indisputable
18801121(YS1)		
18801218(YS4)		
18810127(YM4)	beef curry	elixir of nourishment (<i>yōjō jinzai</i>); nourish one's spirit and increase one's energy; effective for neurosis and various sicknesses
18810407(YM2)	beef soup	the nourishment of body
18810727(YM4)	beef bitter wine	medicine of strength; effective for those who are weak or after sickness
18810902(YM4)		
18820822(AM4)	beef <i>tsukuda-ni</i>	nourishment
18820908(AM4)	beef essence	excellent nourishment; for those who are weak and sick; strengthen the body quickly
18820922(YM4)	beef <i>azuma-ni</i> can	convenient nourishing food
18821015(AM4)	beef essence, beef <i>tsukuda-ni</i>	Nourishment
18821019(YM4)	canned beef <i>azuma-ni</i>	convenient nourishing food
18821101(YM4)	<i>gyūnabe</i> , ovine-nabe	nourishing eating; health reservation/recuperation
18821109(AM4)	beef essence, beef candy, beef <i>mizuame</i> , <i>tsukuda-ni</i>	nourishing beef products
18830410(AM4)	beef essence	nourishment; the best products to strength from various weakness
18830422(AM4)		
18840928(YM4)	beef soup	numerous orders from doctors and various hospitals
18850926(YM4)	beef soup	numerous orders from various doctors and hospitals
18850929(YM4)		
18851027(AM4)	beef soup	excellent nourishing food; generally speaking, beef is the most nourishing among flora and fauna
18851031(YM4)	beef soup	numerous orders from various doctors and hospitals
18860104(YM4)		
18860130(YM4)		
18860331(YM4)		
18860430(YM4)		
18860529(YM4)		
18860630(YM4)		
18860728(YM4)	medicinal beef soup	medicinal; good nourishment
18860729(YM4)	beef soup	numerous orders from various doctors and hospitals
18860813(AM4)	<i>kina</i> beef iron wine	nourishment; strength
18860819(YM4)	medicinal beef soup	Medicinal
18860827(YM4)		
18860831(YM4)	beef soup	numerous orders from various doctors and hospitals
18860915(AM4)	<i>kina</i> beef iron wine	medicinal wine for strengthening one
18860928(YM4)	medicinal beef soup	nourishment; specific nourishment; numerous orders from great doctors
18860930(YM4)		
18861013(YM4)	<i>gyūnabe</i>	best nourishment
18861029(YM4)	beef soup	numerous orders from various doctors and hospitals
18861030(YM4)		
18861103(YM4)	<i>gyūnabe</i>	serving the real nourishing food and beverage at a reasonable prize
18861203(AM4)	beef can	

Date	Product / dish	Key phrases / sentence related to health concern
18861218(AM4)		suitable for the old and weak; gift for sick persons; nourishing
18861224(YM4)	<i>gyūnabe</i>	aims at increasing the meat consumption that nourishes human bodies the best
18870107(AM4)	beef can	suitable for the old and weak; gift for sick persons; nourishing
18870201(YM4)	beef soup	numerous orders from various doctors
18870203(YM4)		
18870315(YM4)	beef soup	numerous orders from various hospitals and doctors
18870324(AM4)	beef can	suitable for the old and weak; gift for sick persons; nourishing
18870430(YM4)	beef soup	numerous orders from various doctors and hospitals
18870501(YM4)		
18870621(AM3)	beef <i>oboro-ni</i>	best nourishing food; gift for sick persons
18870630(YM4)	beef soup	numerous orders from various doctors and hospitals
18870809(YM4)		
18870810(YM4)		
18871103(AM3)	beef <i>oboro-ni</i>	full of nourishment; gift for sick persons
18871130(YM4)	beef soup	numerous orders from various doctors and hospitals
18880110(YM3)	fowls and beef restaurant	nourishment
18880302(YM4)	beef <i>tsukuda-ni</i> , boiled beef	the production process ... does not reduce the content of nourishment
18880304(YS2)		
18880313(YM4)		
18880503(YM4)	beef chicken soup	numerous of orders from various doctors and hospitals
18880529(AM3)	<i>kina</i> beef iron wine	aims for strengthening body; nourishing beverage
18880731(YM4)	beef soup	numerous orders from various doctors and hospitals
18880930(YM4)	beef soup	numerous orders from various great doctors
18881030(AM4)		
18881031(YM4)		
18881128(YM4)		
18881227(YM4)		
18890106(YM3)	<i>gyūnabe</i> , easy Western dishes	Nourishing
18890108(YS2)		
18890110(YM4)		
18890327(AM4)	beef <i>tsukuda-ni</i>	Nourishment
18890328(AM3)		
18890329(AM3)		
18890402(AM3)		
18890628(YM4)	beef soup	numerous orders from various great doctors

Fig. 3 Advertisements for and articles about shops or outlets of beef and beef products with copy related to medicinal benefits from 1890 to 1899

Date	Product / dish	Key phrases / sentence in relation to health concern
18901105(AM4)	beef soup	medicinal; nourishment; with comments from doctors
18901106(AM4)	beef soup	Nourishment
18920426(AM3)	beef <i>yamato-ni</i>	Nourishing
18931003(YM3)	beef and chicken miso	king of nourishment
18940830(AM3)	beef miso	nourishing...food
18941030(AM6)	beef miso	increase one's physical strength, energize one and eventually one ought to obtain the happiness longevity without sickness; nourishment
18950217(YM6;AM6)	triumphal soup, triumphal beef soup	nourishment
18950331(AM6)	beef miso	especially now there is sign of severe plague outbreak; for the sick and the old, young, postpartum and wounded; nourish body and mind
18950418(YM6)	beef miso	good nourishment; especially now there is sign of severe plague outbreak; effective for various conditions, such as lung conditions, stomach conditions, beriberi, womb conditons, infertility, after being wounded; anemia
18950430(AM3)	beef (dishes is not specified)	nourishment
18960217(YM6)	Peptone (made from beef)	nourishment; effective for gastrointestinal conditions, lung conditions, anemia, and general weakness
18960327(YM5)		
18960822(AM4)	Golden bread (filled with beef miso)	rich in nourishment

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Fig. 4 Advertisements for and articles about shops or outlets of beef and beef products with copy related to medicinal benefits from 1900 to 1912

Date	Product / dish	Key phrases / sentence in relation to health concern
19000516(AM8)	extract of meat (made from beef)	nourishment of beef; rich in nourishment; suitable for young, old, and weak
19000518(AM8)		
19000521(AM8)		
19000625(YM8)		
19010410(YM5)	Bovine (made from beef)	nourishment that becomes your blood just by drinking it; odorless and tasteless, has been praised as one of the best sources of nourishment; therefore it is easy to drink for those who are medicine-avoider and children
19010410(YM15)	Somatose (beef powder)	rich in nourishment; for those who are generally weak or in the period recovering from illness
19020826(AM8)	beef <i>yamato-ni</i> can	Nourishing
19020828(AM8)		
19020910(AM7)		
19030818(AM4)	beef jelly	nourishment of beef
19031109(YM4)	beef jelly	rich in nourishment, suitable for the weak and the sick
19040103(YM5)		
19040108(YM5)		
19050627(AM1)	beef <i>yamato-ni</i>	nourishing food for summer
19090926(AM1)	beef can	rich in nourishment
19091026(AM1)		
19091215(AM1)		
19110710(AM7)	Musculosine (made from beef)	tonic replenishing blood that necessary for those have anemia; especially suitable for men, women and children who are oversensitive
19110908(AM1)		
19111105(AM7)	Musculosine (made from beef)	tonic replenishing blood; especially suitable for men, women and children who are oversensitive, effective for weakness and anemia
19121227(YM4)	beef picked with miso	rich in nourishment

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薬用ろつぷ弁賣 價定

●●●牛肉をつぶ 代價金七
●●●鶏肉をつぶ 代價金十二
●●●特別製 代價金十五
●●●合 代價金二十

人間誰か病なからん病んで身体の衰弊する是れ自然に免れざるの數なり今や醫術日に月に進み良薬亦益々備はると雖も凡そ藥劑の効ハ重に病毒を逐滅するにあるのみ病人の衰弊を耐ふにハ別に滋養分の注入なるべからず近年世間往々ろつぷを賣捌くものあれども其品質極めて悪しく或ハ骨を以て製し或ハ粗肉を以て製し且つ其製造の不完全にして昔な薬用に適するものなし故廣澤洋行謹啓 西洋料理を學びて其奥義を極め殊にろつぷの製造ハ翁が特色の技と稱へり偶想ふ所ありて或る名醫に就き薬用ろつぷ製法の學理を聞き履を實驗を経て遂に完全純良なるものを製造し大方諸名醫の稱賛を得たり今や君既に進ち本舎茲に其遺業を繼ぎ之を藥用ろつぷと名づけ専ら誠實を主とし廣く世間に販賣し吾が同胞の衛生上聊か補益する所あらんと欲す

薬用ろつぷ 上等食用鶏牛肉を以て製するものなれハ無色透明にして其實極めて純良なり且つ多量の滋養分を含むことハ少く寒冷に逢へハ速收するを以て知るべし

薬用ろつぷ 味極めて美にしてよく病人の口味に適し其食欲を促すと妙なり

薬用ろつぷ 之を飲用すること凡そ四五週日に及ハ、忽ち筋肉肥り元氣伸張し

薬用ろつぷ 腸胃の製法に従ふものにして製造器械ハ寒暖計を仕組み四時間同温度を以て煮積し十分に肉の滋養分を抽出したるものなり

薬用ろつぷ 病に病人の藥用に適するものならず平素健全なる者又身軀の虛弱なる者之を常用することハ其健康を保ち諸種の病毒に侵されざるの効あり

薬用ろつぷ 衛生局試驗所に定量分析を出願せられた御試驗の成績ハ追て更に廣告する所あるべし

薬用ろつぷ 飲用の節少許の食鹽と鈉鹽又ハ野菜など淡泊なるものを差加へられ

長谷川泰先生御品評 拜啓過日坊間未見其比藥用上適當の者と認定良品にて坊間未見其比藥用上適當の者と認定

隈川宗悦先生御品評 拜啓陳バ先般ハ貴舎製造の雞肉をつぶ並に牛一應試驗致候處充分の滋養分を含有し且味ハ美にして如何なる被下試驗可致様御中越に付即人の患者に勧告し用ひさせ候處皆好みて相用の殊に胃加答兒の患者も飲得可申致候數も試食するも能はざりし者且惡阻症にて嘔吐最甚し口乾も納らざる者も試飲致候何れも飲得之が爲め速に肥立此程全快致候之れ偏に原料の宜きと製法の完全なるに據るものと認定致候間世人の爲め益々御馳賜あらんとを希望す先ハ實驗の成績御報道まで如此に御座候也

松山棟庵先生御品評 廣澤翁君て予に就て薬用ろつぷ製法の學理をりて鑑定を乞へり其品質の純良なる固より坊間諸君の比にあらざる來多數の患者に勧めめて之を飲用せしめ果して効力の顯著なるを認めたり

安藤正胤先生御品評 萬年舎主人自製の薬用ろつぷを携へ來り余にせしに果して其滋養の効驗著しきを見たり爰に於て其製法の確實なることを信ず

本舎今同諸先生の致を乞て一府の改良を加へ充分常用者に對するの信用を重んじ發賣致候に就てハ東京府下十五區内ハ毎日配達致候間御需用の方々ハ郵便はがきを以て陸續御注文あらんとを希望仕候也

但し御望に應じ如何なる上等の品にて調製仕候

五十一日 開業 萬年舎 直橋區銀座三丁目十一番地

Fig. 5 Advertisement for beef soup and chicken soup on November 5, 1890, with comments from doctors, printed in the *Asahi shinbun* (morning edition, p.4)

衛生局報告	
○全國傳染病患者一週間(二月廿三日ヨリ同月廿九日 ニ至ル)申報第四回	
腸室扶斯新患者	七十八人 新舊患者死亡廿四人
赤痢全	壹人全 無
實布の里亞全	十五人全 七人
猴疹室扶斯全	三人全 三人
痘瘡全	三十九人全 二人
明治十四年一月卅一日 内務省衛生局	

Fig. 6 Report from the Sanitary Bureau on February 6, 1881, printed in the *Yomiuri shinbun* (morning edition, p.1) showing the cases of different infections and the number of deaths

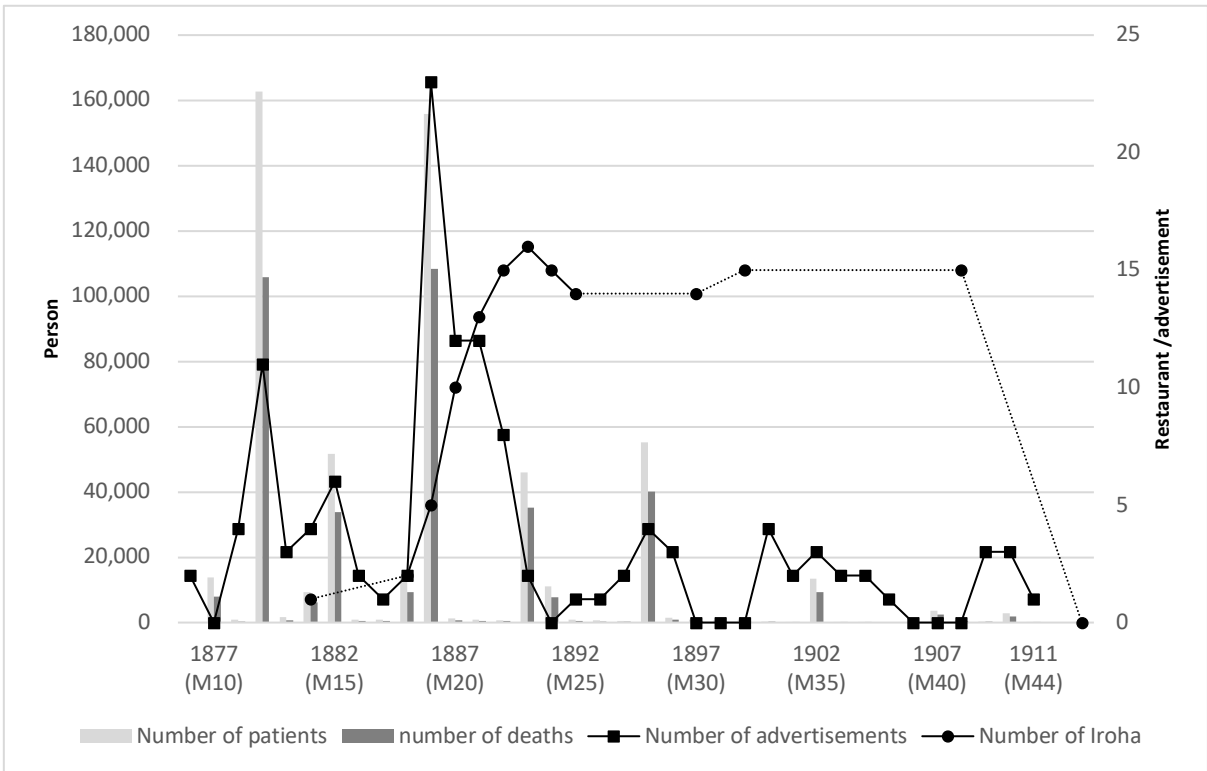


Fig. 7 The relationship between cholera and the beef business

Source: The data of patients and deaths from cholera was downloaded from the homepage of the Ministry of Health, Labour and Welfare. Website: <https://www.mhlw.go.jp/wp/hakusyo/kousei/14/backdata/1-1-1-01.html>.

The data of number of advertisements is based on Appendix I. The data for the number of Iroha branches was collected from Iroha advertisements in the Meiji period. See also Matsunaga, *Kimura sōhei kun den*, 26–29.

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	whole year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	Dec
1875										500 ^a		
1878	7942 ^b											
1879				734 ^c	594 ^d	484 ^e						
1881	5091 ^f	516 ^g	433 ^h			341 ⁱ	300 ^j	321 ^k	250 ^l	571 ^m	499 ⁿ	
1882		394 ^o	420 ^p	419 ^q	313 ^r	301 ^s	1010 ^t					
1883	9855 ^u	1203 ^v										
1884		153 ^w	307 ^x	352 ^y	647 ^z			141 ^{aa}	298 ^{bb}	353 ^{cc}		
1885		391 ^{dd}	543 ^{ee}	514 ^{ff}	481 ^{gg}	399 ^{hh}	307 ⁱⁱ					
1886	20296 ^{jj}											2676 ^{kk}
1887	19232 ^{ll}						1180/ 1225 mm				1757 ⁿⁿ	2010 ^{oo}
1888	19205 ^{pp}	1532 ^{qq}							972 ^{rr}		1702 ^{ss}	1827 ^{tt}
1889					1292 ^{uu}	1121 ^{vv}		1032 ^{ww}				
1890		1126 ^{xx}										

Fig. 8 Number of cattle being slaughtered in Tokyo from 1879 to 1889

Source: Articles from *Yomiuri shinbun* and *Asahi shinbun* 1879-1890. (Only the data in the articles that matched the keywords searched is included.) See also Noma, 'Kindai Nihon niokeru nikushoku juyō katei no bunseki', 79.

^a Noma, 'Kindai Nihon niokeru nikushoku juyō katei no bunseki', 79.

^b *Yomiuri shinbun*, March 22, 1879, morning edition, p.1.

^c *Yomiuri shinbun*, June 15, 1879, morning edition, p.2.

^d Ibid.

^e Ibid.

^f *Yomiuri shinbun*, February 16, 1882, morning edition, p.1.

^g *Yomiuri shinbun*, February 6, 1881, morning edition, p.1.

^h *Yomiuri shinbun*, April 7, 1881, morning edition, p.1.

ⁱ *Yomiuri shinbun*, June 26, 1881, morning edition, p.2.

^j *Yomiuri shinbun*, July 6, 1881, morning edition, p.1.

^k *Yomiuri shinbun*, August 10, 1881, morning edition, p.2.

^l *Yomiuri shinbun*, September 6, 1881, morning edition, p.1.

^m *Yomiuri shinbun*, October 9, 1881, morning edition, p.3.

ⁿ *Yomiuri shinbun*, December 8, 1881, morning edition, p.2.

^o *Yomiuri shinbun*, February 28, 1882, morning edition, p.3.

^p *Yomiuri shinbun*, March 10, 1882, morning edition, p.2.

^q *Yomiuri shinbun*, April 5, 1882, morning edition, p.1.

^r *Yomiuri shinbun*, May 7, 1882, morning edition, p.2.

^s *Yomiuri shinbun*, June 21, 1882, morning edition, p.3.

^t *Yomiuri shinbun*, July 7, 1882, morning edition, p.3.

^u "Tojū no kazu." *Yomiuri shinbun*, March 4, 1884, morning edition, p.2.

^v The total number of cattle being slaughtered from January to March. *Yomiuri shinbun*, April 28, 1883, morning edition, p.3.

^w "Tojū." *Yomiuri shinbun*, April 12, 1884, morning edition, p.2.

^x Ibid.

^y Ibid.

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- ^z The total number of the cattle being slaughtered from April to June. “Tochiku.” *Yomiuri shinbun*, July 4, 1884, morning edition, p.2.
- ^{aa} “Tojū.” *Yomiuri shinbun*, October 2, 1884, morning edition, p.2.
- ^{bb} Ibid.
- ^{cc} Ibid.
- ^{dd} “Tojū.” *Yomiuri shinbun*, April 4, 1885, morning edition, p.2.
- ^{ee} Ibid.
- ^{ff} Ibid.
- ^{gg} “Tochiku no kazu.” *Yomiuri shinbun*, July 16, 1885, morning edition, p.3.
- ^{hh} Ibid.
- ⁱⁱ Ibid.
- ^{jj} The subtotal does not match with the broken down figures. Another sum we got after calculation using the sub total given is 20337. “Sakunenchū no tojūsū.” *Yomiuri shinbun*, March 11, 1887, morning edition, p.2.
- ^{kk} “Tojū no kazu.” *Yomiuri shinbun*, January 15, 1887, morning edition, p.2.
- ^{ll} “Tojū.” *Yomiuri shinbun*, February 5, 1888, morning edition, p.2.
- ^{mm} “Tojū.” *Yomiuri shinbun*, July 15, 1887, morning edition, p.1; “Gyūnyū jūniku hanbai narabini chikurui tosatsu.” *Yomiuri shinbun*, July 28, 1887, morning edition, p.1.
- ⁿⁿ “Tojū no tōsū.” *Yomiuri shinbun*, December 13, 1887, morning edition, p.3.
- ^{oo} “Tojū no kazu.” *Yomiuri shinbun*, January 18, 1888, morning edition, p.2.
- ^{pp} The total number of cattle being slaughtered at Shirokane and Senzoku. “Tojū no kazu.” *Asahi shinbun*, March 27, 1889, morning edition, p.4.
- ^{qq} The total number of cattle being slaughtered in Shirokane-mura and Senzoku-mura. “Tojū.” *Yomiuri shinbun*, February 17, 1888, morning edition, p.3.
- ^{rr} The total number of cattle being slaughtered in Shirokane-mura and Senzoku-mura. “Jūnikuten oyobi tosatsu no kazu.” *Asahi shinbun*, September 11, 1888, morning edition, p.3.
- ^{ss} The total number of cattle being slaughtered in Shirokane-mura and Senzoku-mura. “Tojū gōkei.” *Yomiuri shinbun*, December 15, 1888, morning edition, p.3.
- ^{tt} “Tojū gōkei.” *Yomiuri shinbun*, January 16, 1889, morning edition, p.2.
- ^{uu} The total number of cattle being slaughtered in Shirokane-mura and Senzoku-mura. “Togyū gōkei.” *Yomiuri shinbun*, May 19, 1889, morning edition, p.3.
- ^{vv} “Tosatsu gōkei.” *Yomiuri shinbun*, June 20, 1889, morning edition, p.1.
- ^{ww} “Tojū gōkei.” *Yomiuri shinbun*, August 21, 1889, morning edition, p.3.
- ^{xx} “Togyū no kazu.” *Yomiuri shinbun*, February 22, 1890, morning edition, p.2.

開業移轉廢業賣家廣告

今般都合に據り後草馬道第十四支店廢業し麻布六本
 木へ移轉開業と神田區下白壁町第十一支店廢業し青
 山南町へ移轉開業と芝區南佐久間町第四支店廢業し
 半込神樂坂上四ッ辻石原喜三郎氏敷年開業に於て第
 る煉化三階建築△形見晴し絶景を有する家屋に於て第
 八支店と稱し當時造作中來る十二月中旬開業可仕に
 付廢業三店へ御來駕の各位方より陸續御來車且御引立
 に預り候御客様方開業の當日より陸續御來車且御引立
 被仰付度就ての淺草馬道神田下白壁町芝區南佐久間
 町の三店の御買求め被下度一大徳用の家屋大安賣廣告
 御方様の御買求め被下度一大徳用の家屋大安賣廣告

三田區
 いろは
 木村莊平

Fig. 9 Iroha's advertisement for opening, moving, closing and selling properties on November 30, 1891 (Yomiuri shinbun, morning edition, p.4)

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○牛羊豚三種の中に就き最も滋養質を帯ふるもの牛肉であるとい世人も知る處あるが今西洋の或農學化學家の分析表を得たれば左に掲ぐ

成分 種類	牛肉		羊肉		豚肉	
	水分	脂肪	水分	脂肪	水分	脂肪
水分	六〇、八〇	一八、〇〇	五七、三〇	一四、五〇	五五、三〇	一四、〇〇
脂肪	一六、〇〇	二〇、〇〇	二四、八〇	三、〇〇	二八、一〇	一〇、〇〇
鹽類	五、二〇	〇、〇〇	四、四〇	〇、〇〇	二、六〇	〇、〇〇

此表に據ると牛肉即ち窒素質にして人の體內に入り肉を成すべき部分の牛最も多く羊之に次ぎ豚又之に次ぐ之に反し脂肪即ち炭素質にして人の體內に入り温素を成す部分の豚最も多し羊之に次ぎ牛又之に次ぐ故に食肉の實に牛肉に若くものあきを信す

Fig. 13 Article printed on July 12, 1884, in the *Asahi shinbun* (morning edition, p.3) proving that beef is the best meat with scientific evidence

Figure Caption as a List

Appendix I (Fig.1 – 4)

Fig. 1 Advertisements for and articles about shops or outlets of beef and beef products with copy related to medicinal benefits from 1874 to 1879

Fig. 2 Advertisements for and articles about shops or outlets of beef and beef products with copy related to medicinal benefits from 1880 to 1889

Fig. 3 Advertisements for and articles about shops or outlets of beef and beef products with copy related to medicinal benefits from 1890 to 1899

Fig. 4 Advertisements for and articles about shops or outlets of beef and beef products with copy related to medicinal benefits from 1900 to 1912

Fig. 5 Advertisement for beef soup and chicken soup on November 5, 1890, with comments from doctors, printed in the *Asahi shinbun*

Fig. 6 Report from the Sanitary Bureau on February 6, 1881, printed in the *Yomiuri shinbun* showing the cases of different infections and the number of deaths

Fig. 7 The relationship between cholera and the beef business

Fig. 8 Number of cattle being slaughtered in Tokyo from 1879 to 1889

Fig. 9 Iroha's advertisement for opening, moving, closing and selling properties on November 30, 1891

Fig. 10 Iroha's advertisement about setting up telephones

Fig. 11 Iroha's advertisement about the opening of branch no.20

Fig. 12 List of preventive methods for cholera

Fig. 13 Article printed on July 12, 1884, in the *Asahi shinbun* proving that beef is the best meat with scientific evidence

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