

ON THE EXTENT OF YUSHO IN SOME ASPECTS

Shimoda M

Shimonoseki City University, 2-1 Daigaku-cho, Shimonoseki 751-8510, Japan

Abstract

Here a suspicion is presented that the state of reality on Yusho would be much larger than the commonly accepted views. Based on the obtainable resources and the author's long term experience, it would be strongly suggested that the commonly accepted views have underestimated Yusho's reality at least in four aspects; timing of contaminations and symptoms, area of contaminations, clinical pictures, and the cause of the contamination. The processes how such commonly accepted views had been created and accepted are also discussed.

The commonly accepted views seems to have been officially supported without detailed academic research with respect to the entire picture of Yusho. However, Yusho has at least several points to be carefully investigated again with respect to its processes, causes, and effects on the patients. Reviewing Yusho from various points of view are expected to be of great help not only for treating the existing patients appropriately but also for preventing from or preparing for similar cases.

Introduction

A 'strange disease' later known by the name of 'Kanemi Yusho' began to be reported by mass media from October 10, 1968. Soon it rapidly became one of major social issues in western Japan; and within a half a month, more than 10,000 people had reported their symptoms to the authorities. Soon it became obvious that it was caused by the ingestion of rice bran oil made by Kanemi Soko Corp. and that the oil was contaminated with a brand name Kanechlor-400 (PCBs) produced by Kaneka Corp. (former Kanegafuchi Chemical Industry Corp.).

According to the commonly accepted views^{1,2}, the brief picture of Yusho chiefly led by the Study Group for Yusho would be as follows.

The epidemic of the disease started in February 1968 and it was caused by the ingestion of rice bran oil contaminated with PCBs produced early in February of the year. More than 1,800 patients suffered from the disease, and most of them lived in Fukuoka or Nagasaki prefecture (or some other few prefectures). Later the rice oil was found to be also contaminated with various dioxins such as PCDFs. At first the contamination was thought to be due to a leak of PCB through pinholes in a stainless steel pipe in the deodorization tank. Later it is said that the oil was contaminated by PCBs through a hole made by a welding error occurred at the end of January 1968. The characteristic objective symptoms of the disease are some dermatological or ophthalmological manifestations, and various symptoms such as general fatigue, anorexia, headache etc. have been found in many patients.

However, the above views do not always explain all cases. At least dozens of people had claimed that they caught the disease before 1967. Though the area where the officially certified patients lived were limited, not a few people outside the area had similar symptoms. Many people were refused to be certified because they did not have the typical symptoms at that time, but some people had more serious symptoms than their certified families. Many certified patients also have much more serious symptoms than what the Study Group for Yusho have recognized. Therefore the commonly accepted views might

be biased in various aspects.

Materials and Methods

Since 1970 the author have visited more than hundred of patients and have heard various kind of hardships from them, and have collected and recorded many documents on Yusho. In this short paper the problems are treated based on these documents. More detailed arguments and discussions can be seen in the following three articles in Japanese: "Kanemi Yusho disaster and the precautionary principle"³, "Some doubts on the commonly accepted views of Kanemi Yusho disaster"⁴, and "The extent of damage and human rights violations experienced by Yusho victims"⁵.

Results and Discussion

(1) Timing of contaminations and symptoms

According to the commonly accepted views, the patients of the disease had their symptoms after they ate some amount of the contaminated oil produced early in February 1968.

However, at least dozens of people had claimed that they caught the disease before 1967. For example, in April 1972 Dr Umeda reported at an academic conference that 8 persons from Kitakyushu and Iizuka had shown similar symptoms before 1967, half of them were affected since 1963. In October 1973 it was reported that 18 patients in Fukuoka Prefecture have caught the disease before 1967. Even the Study Group for Yusho in Kyushu University also reported that four patients said that they were affected before 1967. Besides in Yamaguchi Prefecture more than 20 people were reported as they had similar symptoms before 1967. Moreover there would not be few who caught the disease by taking only the oil produced after March 1968.

(2) Area of contaminations

The area where the contaminated oil was sold and the officially certified patients took it was limited. Among the 913 officially certified patients by 2 July 1969, about 750 people had lived in Fukuoka or Nagasaki prefecture, about 50 in Hiroshima, and only four more prefectures (Saga, Yamaguchi and Kochi and Nara) have had more than ten certified patients at that time (Table 1). By now the number of officially certified patients increased to more than 1800, but the tendency of the distribution has not been changed.

However, compared with the wide range of the area where patients with some symptoms were reported in almost all prefectures in western Japan, the 'original' area is very narrowed. Even in Nagasaki and Hiroshima prefecture the area where certified patients lived were very limited. So many local governments in western Japan thought that the contaminated oil was not sold in their area.

Table 1: The distribution of 'Yusho patients' in some prefectures on 2 July 1969

	Fukuoka	Saga	Nagasaki	Yamaguchi	Hiroshima	Shimane	Kochi	Ehime	Nara
Reported	6611	962	1399	1182	677	300	309	124	51
Certified	380	17	369	11	53	7	36	7	21

(Reported by the Ministry of Welfare)

(3) Clinical pictures and the diagnosis

The diagnosis criteria mainly consists of typical symptoms with some other subjective ones as mentioned above. Especially in early stage most of the officially certified patients were those who had typical symptoms of dermatological or ophthalmological manifestations such as acneform eruptions, black spots in hair pores, pigmentations, increased discharge from the eyes, extraordinary falling out of the hair etc., and those who did not have such symptoms were not certified even if some of their family were already certified.

However, besides the characteristic objective symptoms, certified (and suspicious) patients had various symptoms such as general fatigue, eyesight weakness, vomiting, asthma-like respiratory distress, loss of appetite, headache, stomach ache, abdominal pain, lumbago, pain in the joints, paresthesia of extremities, cough and sputa, forgetfulness, and loss in the ability to concentrate and so on. Much more symptoms have been reported in many documents. For example, recently Dr Masazumi Harada et al. reported that even today many patients are in severe conditions with various systemic symptoms and complications⁶.

(4) The cause of the contamination.

By around 1980, the contamination was thought to be due to a leak of PCB through pinholes in a stainless steel pipe in the deodorization tank, and the pinholes opened only in early February 1968 when the oil was heavily contaminated. Later leading members of the Study Group for Yusho had come to believe that the oil was contaminated by PCBs through a hole made by a welding error occurred at the end of January 1968.

However, these two theories do not explain why there had been not a few patients who said that they had similar symptoms before 1967. It would be true that a lot of people were damaged because early in February of 1968 a certain amount of PCB with dioxins contaminated the oil in the deodorization tank. But Kanemi Soko Co. had been replenishing about 25kg of Kanechlor per month before 1967. Therefore it is quite possible that Kanechlor began to contaminate the oil within a few years after 1961 when Kanemi Soko Co. started manufacturing the rice oil. Even some members of the Study Group for Yusho mentioned the possibility of the early contamination⁷.

(5) Linkage and background of the problems

So far it is argued that the commonly accepted views might underestimate Yusho's reality at least in four aspects rather independently. But by recalling the measures took by the doctors and the authorities in early stage, it will be clear that these problems are mutually related.

In October 1968, within a week or so after the outbreak of the news it was repeatedly reported by mass media that only the oil made early in February by Kanemi Soko Co. was dangerous, and only such oil were investigated carefully by the authorities concerned. Hence those who were not certain to had took the 'dangerous oil' were seldom certified as Yusho patients in the medical examinations conducted by the authorities. After the investigation of the route of the sales had come to the end of the first stage, many local authorities felt relief by believing that in their territory the 'dangerous oil' was not sold. Among the main esven prefectures where more than ten people were certified before July 1969, almost all of the authorities concerned except in Fukuoka or Nagasaki Prefecture considered that there were few Yusho patients in their territory. Thus the limitation or bias by area are related to the problem of

limitation of the timing of the contamination.

Moreover, the first criteria for diagnosis published on October 19 put much emphasis on dermal symptoms, and in the following medical examinations in most cases only dermatologists examined the patients. This criteria were made by the dermatologists in Kyushu University and were based on the symptoms of 55 patients observed by them. Hence most of the doctors were estimated to have the preconception that Yusho patients took the 'dangerous oil' made early in February and had typical symptoms. As a result in the diagnosis many non-typical symptoms were ignored. Besides many of the examining doctors did not take the time to listen to what the patients were complaining of, thus neglecting to make clear the actual conditions of the Yusho disease.

As for the cause of the contamination, facing the heavy contamination of the oil made in early February, almost all of the authorities at that time probably considered that the disease was caused by a single reason. This idea seems to be very strong even now. But as mentioned before, a single cause cannot explain the long term contamination for some years before 1968.

(6) Concluding remark

The circumstances around the patients has been a little improved; however, even today many people had to go at certain place on particular days for the examination of Yusho. But a disease as serious as the Yusho and as variable in its symptoms as it is, it is unreasonable to expect that it could be diagnosed in the context of medical examination in few hours, especially when one day the symptoms are rather hidden and the next week they may be very obvious.

It might be inevitable that in the early confused situation the measures by the authorities were not adequate. But on both the contamination of the oil and on the human damage, thorough investigations were never conducted since then. Though partial and biased investigations were repeated, many problems remain until today.

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