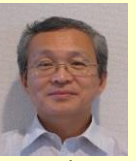


Minamata Disease: 20 times more patients exist than the Japanese government recognizes



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【Purpose】

The number of people suing for damages is more than 20 times the number of governmentally recognized patients. Through an examination of accounts from lawyers, doctors and plaintiffs as well as the historical progression of the Japanese government's actions, I will discuss why a second Minamata disease occurred and how the actions of the government influenced our knowledge of methyl mercury poisoning in Japan.

【Chronology】

| | |
|----------------|---|
| May 1932: | Acetaldehyde production from carbide begins at the Chisso Minamata factory in Kumamoto. |
| Dec. 1936: | Acetaldehyde production from carbide begins at Showa Denko Kanose factory in Niigata. |
| 1 May 1956: | The head of the Chisso affiliated hospital in Minamata, Kumamoto sent an announcement to the city board of health regarding Minamata disease's outbreak. |
| 3 Nov. 1956: | The Minamata Disease Study Team of the Kumamoto University Faculty of Medicine announced that Minamata disease is a type of food poisoning caused by consuming marine products from Minamata Bay. |
| Aug. 1957: | Kumamoto Prefecture agreed to prohibit fishing in Minamata Bay, and contacted the Ministry of Health and Welfare (now Ministry of Health, Labour and Welfare) regarding the legality of enacting the Food Sanitation Act. |
| Sep. 1957: | The chief officer of the Ministry of Health and Welfare Public Health Bureau replied to Kumamoto Prefecture's inquiry stating, 'Since it cannot be definitively confirmed that all the fish and shellfish in Minamata bay are toxic, we cannot apply the Food Sanitation Act'. |
| 22 Jul. 1959: | Prof. Haruhiko Tokuomi, a member of the Kumamoto University's Minamata Disease Study Team and the Ministry of Health and Welfare's Food Hygiene Investigation Committee (Minamata poisoning section), presented his organic mercury theory. |
| 7 Oct. 1959: | Cats fed chemical effluent from the acetaldehyde production process developed Minamata disease at the Chisso Co. affiliated hospital. (The company ordered the discontinuation of the experiments without making this information public.) |
| 12 Nov. 1959: | The Ministry of Health and Welfare Food Sanitation Investigation Committee reported to the Minister that the cause of Minamata disease is 'some kind of organomercury compound'. The investigation committee was dissolved the next day, and, thereafter, the governmental investigations into the cause of Minamata disease were discontinued. |
| 13 Nov. 1959: | In a cabinet meeting, Hayato Ikeda, head of the Ministry of International Trade and Industry, stated, 'It is premature to link Minamata disease with mercury'. |
| 20 Dec. 1959: | A chemical filtration system (named 'The Cyclator') was completed at the Chisso Minamata factory. This system was incapable of removing mercury, and, therefore, the effluent from the acetaldehyde manufacturing process was expelled without being filtered. |
| 30 Dec. 1959: | Under the mediation of the Kumamoto Prefectural Assembly, Chisso and patient groups agreed to a solatium contract. This contract stipulated that patients could not seek further redress even if Chisso's chemical effluent was determined to be the cause of Minamata disease. The Minamata Disease Patient Examination Commission formally recognized only individuals who accepted the solatium contract as Minamata disease patients. |
| Mar. 1963: | In an article titled 'The Epidemiology of Minamata disease,' Haruhiko Tokumomi et al. treats Minamata disease as only a variant of Hunter-Russell Syndrome, and states that no new cases of Minamata disease occurred after 1961. |
| 10 Jan. 1965: | Carbide based acetaldehyde production ceased at the Showa Denko Kanose factory (Ethylene based acetaldehyde production started). |
| 12 Jun. 1965: | Niigata University professor Tadao Tsubaki announced a second outbreak of Minamata disease in the lower basin of the Agano river. |
| Apr. 1966: | Prof. Tadao Tsubaki reported that there are Minamata disease patients with only sensory disturbances. |
| 18 May 1968: | Carbide based acetaldehyde production ceased at the Chisso Minamata factory (Ethylene based acetaldehyde production started). |
| 26 Sept. 1968: | The government announced that Chisso's chemical effluent caused Minamata disease, but stated that Showa Denko was just one probable source. |
| Aug. 1971: | The Agency of the Environment (now the Ministry of the Environment) established standards under the new Law Concerning the Settlement of Environmental Pollution Disputes that allowed applicants with only sensory disturbances to be recognized with Minamata disease. |
| Jul. 1977: | The Agency of the Environment introduced new standards requiring applicants to present a combination of symptoms in order to be recognized as patients under the Pollution-Related Health Damage Compensation System. The number of rejected applicants increased. |
| 15 Dec. 1995: | The final political settlement (1st Settlement) regarding relief for unrecognized patients was decided in a meeting of the Cabinet Concerning Minamata Disease. (1 July 1996 submission deadline) |
| 15 Oct. 2004: | The Supreme Court awarded damages to the plaintiff in the Minamata Kansai Lawsuit, and recognized him as a victim of Minamata disease (not as a patient). Following this decision, new lawsuits began in various courts, and 3,000 people submitted applications for recognition under the Compensation System. |
| 16 Apr. 2010: | The government promulgated the Special Measures Law Concerning the Relief of Minamata Disease Victims and the Decision of the Minamata Disease Problem (2nd Settlement). Applications for relief under the Special Measures Law opened. (31 July 2012 submission deadline) |
| 16 Apr. 2013: | The Supreme Court ruled in favor of plaintiffs in two lawsuits suing the government for recognition under the Compensation System. In both cases, the plaintiffs only presented sensory disturbances and dietary histories. However, the Ministry of the Environment refused to amend the 1977 recognition standards. |

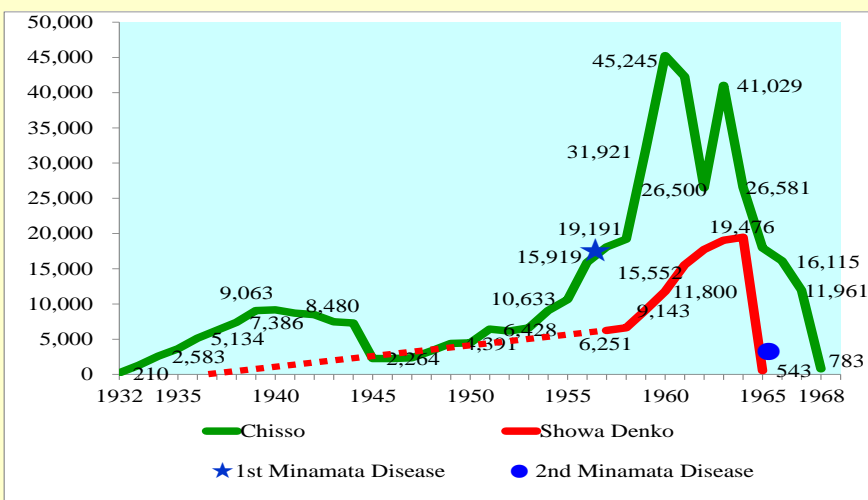
【Methods】

- Since 1975, I have collected interviews from members of the Niigata Minamata disease Research Group, plaintiffs from the 2nd and 3rd Niigata Minamata disease lawsuits, members of the defense council, doctors and supporters.
- I have also collected interviews from doctors and supporters in Kumamoto in addition to documents and accounts from other concerned parties regarding the events that occurred



【Discussion】

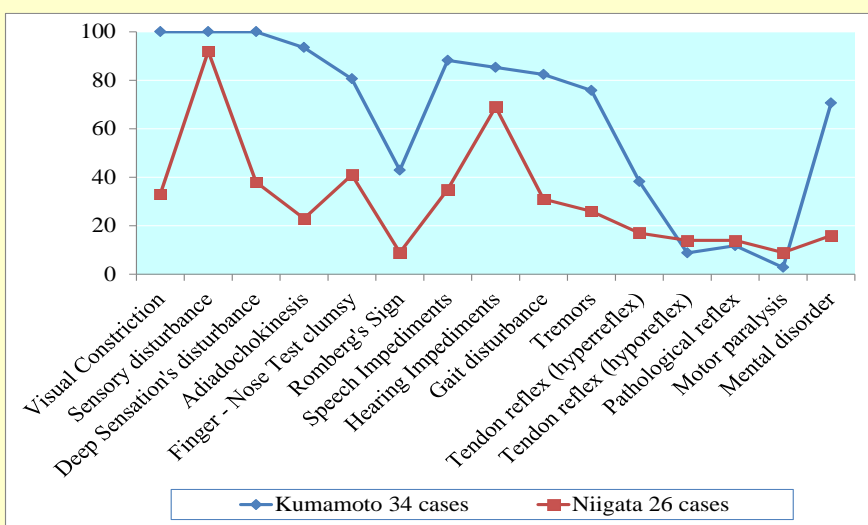
【Figure 1】Annual amount of Acetaldehyde Production



【Discussion 1】

- Production did not cease even after it was clear that the MeHg causing Minamata disease was from the Chisso Minamata factory chemical effluent
- Production ceased only after the carbide-acetylene production process was no longer economically beneficial
- In 1959, Chisso definitively knew that their chemical effluent was the cause of Minamata disease after conducting experiments on cats in which they fed them effluent contaminated food

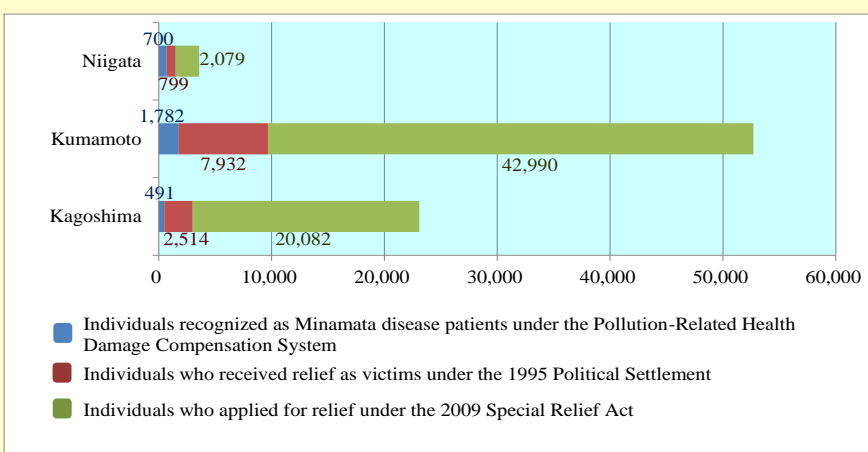
【Figure 2】Symptom Frequency Discrepancies between Officially Recognized Patients in Kumamoto and Niigata



【Discussion 2】

- Bureaucrats attempted to divert research that linked organic mercury with Minamata disease
- **Kumamoto:** The symptoms of Hunter-Russell Syndrome were used to clearly link Minamata disease with mercury; however, the established standards were not based on large scale epidemiological studies to clearly identify Minamata disease's actual symptoms
- **Niigata:** 2,813 people participated in an epidemiological study that more accurately evaluated symptoms resulting from organic mercury ingestion

【Figure 3】Number of Minamata disease Victims in 3 Prefectures



【Discussion 3】

- Akihiro Igata (Min. of Environ.):
- A line cannot be drawn dividing victims of Minamata disease from healthy individuals without doing a thorough study into the health of residents.
- It is inappropriate to say that having only numbness in the hands and feet does not equal Minamata disease. We cannot explicitly say that it is not Minamata disease.

【Figure 4】Revised Criteria for Official Recognition Established in 1977

| Pattern | a | b-1 | b-2 | c-1 | c-2 | d |
|---|-----|-----|-----|-----|-----|-----|
| Sensory Disturbance | (+) | (+) | (+) | (+) | (+) | (+) |
| Ataxia | (+) | (±) | (±) | | | (±) |
| Disequilibrium | | (+) | | | | |
| Constriction of the Visual Field | | | (+) | (+) | (+) | |
| Disease of the Central Nervous System (Visual) | | | | (+) | | |
| Disease of the Central Nervous System (Otolaryngological) | | | | | (+) | |
| Other Combinations | | | | | | (+) |

【Discussion 4】

- Case Study (Male 1930~2008):
- 35 yrs (1965): symptoms presented (sensory disturbances, dizziness, ringing in ears and headache)
- 66 yrs (1996): vertigo; cause was thought to be cerebral vascular disorder
- 75 yrs (2005): applied for recognition under the Compensation System and was examined; his symptoms were found to be just shy of the 1977 criteria; his application was rejected

【Conclusion】

- The Japanese government intentionally obscures the scientific and medical facts surrounding the Minamata disease incident.
- Through requiring applicants to present a combination of symptoms that is medically unfounded, it is clear that the government acts prejudicially towards victims of Minamata disease, and has created an arbitrary compensation system.
- Recent Supreme Court rulings in favor of plaintiffs seeking full recognition as Minamata disease patients reveal this human rights problem in Japan.

【Acknowledgements】

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