

Chapter 1

Minamata Disease

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A form of poisoning, Minamata disease is a disease of the central nervous system, caused by the consumption of fish and shellfish contaminated with methyl mercury compounds discharged into the environment as factory waste etc. and then accumulating in the marine life. There have also been cases of Congenital Minamata disease, in which victims were born with a condition resembling cerebral palsy. This form of the disease is methyl mercury poisoning of the fetus via the placenta, caused when the mother consumes contaminated seafood during pregnancy. Minamata disease is not an infectious disease transferred by air or food, neither is it genetically inherited.

The first recognized outbreaks occurred around Minamata Bay, in Kumamoto Prefecture, in 1956. Brought about by environmental pollution, the damage to health wrought by Minamata disease and the accompanying destruction of the natural environment, is in terms of the scale of damage and the unimaginable gravity of its repercussions, a pollution disaster unprecedented in human history. Niigata Minamata Disease broke out in Niigata Prefecture in 1965.

Symptoms of Minamata Disease

The symptoms of Minamata disease include sensory disorders in the distal portion of the four extremities (loss of sensation in the hands and feet), ataxia (difficulty coordinating movement of hands and feet), concentric constriction of the visual field (narrowing of the field of vision), hearing impairment, disequilibrium (impairment of faculties for maintaining balance), speech impediments (speech becomes slurred and unclear), tremors (trembling of the hands and feet), and disorder of the ocular movement (eye movement becomes erratic). In very severe cases, victims fall into a state of madness, lose consciousness, and may even die. In relatively mild cases, the condition is barely distinguishable from other ailments such as headache, chronic fatigue, and a generalised inability to distinguish taste and smell.

<Note>

When the first outbreaks occurred around Minamata Bay, most patients exhibited a full set of (severe) symptoms. In 16 cases, the patient died within 3 months of the onset of symptoms, and in 1965 the mortality rate was 44.3%. Since then a large number of incomplete or mild cases, displaying an incomplete set of symptoms, have also been identified.

Medical Treatment of Minamata Disease

Causative treatments, involving patients taking medicines to force methyl mercury to be excreted from the body, are applied in the initial stages. However, a fundamental cure for Minamata disease has not yet been found. The main treatments involve the temporary relief of symptoms (symptomatic therapy), and rehabilitation (physiotherapy and occupational therapy).

