

The New Influenza Virus in Sewers

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Water flowing into sewerage systems contains a variety of bacteria and viruses originating in human excrement. It is known that during the norovirus season in the winter, the norovirus concentration in inflowing water is high, and it is assumed that this reflects its prevalence in the drainage district.

The swine derived new influenza virus (H1N1) confirmed to be prevalent in Mexico in March 2009 was also confirmed in Japan in May, and had spread nationwide by between October and December. It has been reported that a survey conducted in Osaka in May 2009 revealed that 23% of patients complained of symptoms of diarrhea ¹⁾. This suggests that the new influenza virus may be flowing in sewerage water, and to clarify the actual situation, it was necessary to study impacts on workers and on receiving waters. To meet this need, an emergency survey was conducted.

The emergency survey was a survey of influenza virus genes in water flowing into and water

discharged from two water treatment plants in Japan during the peak of the period of prevalence of new influenza from October to December 2009. The results of the survey show that during the prevalent period, the quantity of new influenza virus flowing into sewerage systems is extremely low and water treatment plants remove it efficiently, so that almost none of the virus remain in the water discharged from the plants. The results have provided basic information to be applied to study measures to deal with spread of bird flu which, it is feared, may gain the ability to infect humans in the near future.

[References]

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(http://idsc.nih.go.jp/disease/swine_influenza/2009jisc/report_osaka.html)