AN AUTOPSY CASE OF NEW INFLUENZA VIRUS A/2009(H1N1,PDM) PNEUMONIA.

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We report here a case of 5th fatality from influenza A2009(H1N1,PDM) virus(IAV) infection and the first autopsied case in Japan. 33 years old man, suffering from chronic heart failure due to dilatative cardiomyopathy-like heart disease and diabetes mellitus for three years, and, in addition, atopic dermatitis and asthuma since childhood, complained cough, watery diarrhea and slight fever (day 1). Because of high fever (39°C), he consulted emergency room of Nagano Red Cross Hospital (day 4). He also shouwed hemosputum and was hospitalized (day 6). Chest X-P revealed consolidation shadow of both lungs. Severe left ventricular dysfunction and respiratory condition rapidly grew and finally died of multiple organ failure (day 8). Throughout hospitarization, rapid test for influenza virus Ag (performed three times using nasopharyngeal samples), mycoplasma Ag, regionella Ag, ß-glucan and endotoxin were all negative. PCR to detect IAV genom was performed on a sample from nasopharyngeal mucosa and was demonstrated positive. In the course of the last admission he did not dysplay any suggestion of meningo-encephalitis.

Autopsy revealed severe edema, exudate and hemorrhage of bilateral lungs (800:730 g) and focal fibrin-deposition. Intra-bronchial fluid was pisitive for Rapid test of influenza A Ag. Immunohistochemically influenza A NP antigen(IANA) was frequently detected in alveolar type Ⅱ epithelium and bronchiolar epitherium. Detached positive cells were also found and floating in the exudate in alveoli. Hyaline membrane formation was occasionally found. Complication of common bacterial bromchopneumonia was not identified. The heart was hypertrophic and chambers were dilated (670 g). Findings of cardiomyositis and IANA in the myocardium ware failed to detect. Although we find hyperplasia of solitary lymph follicles of terminal ileum and rectal erosion, but IANA was not demonstrated in these sites. Thus cause of waterry diarrhea was still obscure. Brain was edematous (1.350 g) but findings of meningoencephalitis was not observed.

IAV is believed not so highly pathognomonic, and about 30 caces has died in Japan. In our case clinical signs become worse rapidly. Clinicaly and pathologically, the present case showed the most early phase and pure morphology of IAV pneumonia.