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**Psychiatric Epidemiological Survey on Atomic-Bomb Survivors in Nagasaki**

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We conducted an epidemiological study of mental disorders among the Nagasaki atomic bomb survivors from 4th Oct., 1994 to 31st Jan., 1995. We investigated the current mental state of them, and evaluated their mental health conditions by questionnaires, i.e. GHQ (General Health Questionnaire) and CIDI (Composite International Diagnostic Interview). 4,665 persons had accomplished the 1st step survey by GHQ-12, and 163 persons had accomplished the 2nd step survey by CIDI and GHQ-30. We compared the GHQ-12 scores between the proximally exposed a-bomb survivors and distally exposed a-bomb survivors. The mean value of GHQ-12 score was higher among the proximally exposed than among the distally exposed, so the proximally exposed had more psychiatric symptoms.

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**Mortality of A-bomb Survivors in Nagasaki based on ABS93D**

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A data base of A-bomb survivors in Nagasaki has been maintained at the Scientific Data Center for the A-bomb Disaster at Nagasaki University School of Medicine. Radiation dose for survivors in Nagasaki have been estimated by Atomic Bomb Survivor 1993 Dose (ABS93D). To study the mortality rates of A-bomb survivors for the period of 1971 through 1994, we selected 2,743 persons (dose estimate available) and age-matched 8,229 persons as control who were alive in 1971. The study resulted in that males exposed to 31-40 cGy showed significantly lower mortality from non-cancerous diseases than that of control.

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**Modification Effects of AK-2123 on hyperthermia Treatment of Mouse Leukemic Cells invitro**

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AK-2123, a nitrotriazole derivative, was developed as radiosensitizer. Recently, this compound has been reported to be useful for cancer therapy with radiation or chemoagents represented Adrimycin. So, I tried to examine whether this compound is useful for hyperthermia, or not. Using L-1210 as mouse leukemic cell, the effects of AK-2123 were tested with heat-treatment. AK-2123 stimulated cell killing for 2 and 4 hours incubated in water-bath at 42.5 C under hypoxic and irradiated condition. The conditions were N<sub>2</sub> gas and 10 Gy X-irradiation.