

広島統計談話会
Hiroshima Statistics Study Group

第 263 回談話会を下記のように開催致しますので
御参集下さいませようご案内申し上げます。

You are cordially invited to the 263nd meeting as scheduled below.

日 時 : 2011 年 4 月 22 日 (金) 15:00 –
Date : April 22, 2011 (Fri) 15:00 –
場 所 : 放射線影響研究所 講堂
Place : RERF Auditorium
演 者 : 中島 栄二 博士 (放射線影響研究所統計部 副部長)
Speaker : Eiji Nakashima, Ph. D.
Associate Chief
Radiation Effects Research Foundation
演 題 : 「原爆被爆者における白内障研究最新情報、および皮質白内障オク
タントデータの解析」
Title : “Cataract Study Update and An Analysis of Cortical Cataract Octant Data in
Atomic-bomb Survivors.”

要 約 :

Abstract:

First, we provide an update of cataract studies for Atomic-bomb survivors. It can be summarized into following two points: (i) radiation dose responses was found in posterior sub-capsular cataract prevalence just after the A-bombing and then after several decades was found in cortical cataract prevalence, (ii). The dose response threshold for these two cataract types were less than 1 Gy, which is much smaller than that thought before in the society of radiation protection.

Second, we provide an analysis of cortical cataract localization data. In the cataract study from 2000 to 2002, digital images of the lens opacity of each eye were stored for Atomic-bomb survivors. The image of the lens of each eye of the subject was divided into octant and the binary opacity responses (1/0) of 16 sectors were observed for each subject. For the 16 dimensional data, generalized/independence estimating equations (GEE/IEE) method was applied, where covariates were city (Hiroshima and Nagasaki), sex (Male and female), age at examination (years), DS02 eye radiation dose (Gy), angle of the sector, and diabetes indicator (HbA1c \geq 6.0) were included in the model. We observed that opacities due to city and age tend to be more severe among inferior nasal part of octants than in other sectors, while the effects of radiation and sex are not relevant to any sectors.