

## **Factors Associated to Down Syndrome Causes in Patients of Cytogenetics Laboratory, Faculty of Medicine, Universitas Padjadjaran in 2014–2015**

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**Abstract :** Down syndrome is a chromosomal abnormality of chromosome 21 which can appear in man or woman. Maternal age and paternal age, history of radiation are the common risk factors. This study was conducted to observe risk factors which related as causes of Down syndrome. In this case control study using purposive sampling technique, 84 respondents were chosen from Cell Culture and Cytogenetics Laboratory patients in Faculty of Medicine, Universitas Padjadjaran, Indonesia. They were used as study samples and divided into 42 Down syndrome cases and 42 control respondents. This study used univariate and bivariate analysis (chi-square). Samples population were West Java residents, the biggest province in Indonesia in number of population. The results showed maternal age, paternal age, history of radiation exposure and family history were not significantly related to Down syndrome baby. Moreover, all of those factors also did not contribute to the risk of having a child with Down syndrome in patients at Cell Culture and Cytogenetics Laboratory, Faculty of Medicine, Universitas Padjadjaran. Therefore, we should investigate other risk factors of Down syndrome in West Java population.

**Keywords :** down syndrome, family history, maternal age, paternal age, risk factor

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