

## DOWN SYNDROME: WHAT ARE THE POSSIBLE RISK FACTORS OF OCULAR ANOMALIES?

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### ABSTRACT

**Aims:** The aim is to determine the possible risk factors that associated with the cases of ocular anomalies among Down Syndrome patients in Hospital Canselor Tuanku Muhriz.

**Methodology:** This retrospective study involves 97 patients who had attended the Child Development Clinic in Hospital Canselor Tuanku Muhriz, Cheras, Kuala Lumpur.

**Results:** About 54.6% were recorded to have ocular anomalies with astigmatism was 39.4%, followed by hyperopia with 28.7%. Myopia, anisometropia and strabismus had similar percentages with 11.7% and the nystagmus were only reported with 6.4%. Result showed no statistically significant association between the risk factors of advanced maternal aged ( $p=0.574$ ), advanced paternal age ( $p=0.591$ ), history of fetal death ( $p=0.579$ ) and history of maternal illness during gestation period ( $p=0.843$ ) with the ocular anomalies. However, the subjects with the maternal history of fetal death had showed 44% more likely to have risk of ocular anomalies than the Down Syndrome patients to the mother who do not have the fetal death history.

**Conclusion:** The maternal age, paternal age, history of abortions or stillbirths and history of maternal illness during the pregnancy of Down Syndrome infants were not associated with the presentation of the ocular anomalies among Down Syndrome.

**Keywords:** risk factors, Down Syndrome, ocular anomalies