Relative Risk Factors for Hypospadias among Children in Mosul Hospitals

Background: Hypospadias is a male congenital defect in which urethral opening is not located at the tip of the penis. This study aimed to identify relative risk factors that may contribute to the development of hypospadias in children.

Material and method: A case-control study design was adopted to discover relative risk factors that may contribute to hypospadias occurrence in children that had been conducted from $4^{\text {th }}$ October 2022 to $10^{\text {th }}$ May 2023. A non-probability sample was purposively selected according to the inclusion and exclusion criteria for a total of 200 children aged from one month to thirty-six months, 100 of children with hypospadias were in the study group, and 100 of children in the healthy control group. Reliability of questionnaire tested through pilot study in which 20 samples were involved that was selected from Al-Jamhory Teaching Hospital and Al-Khansaa Teaching Hospital, by using Cronbach's Alpha measurement, the result of pilot study yielded a high level of reliability (0.81).

Results: The study results show that there is a significant difference between children with hypospadias and the healthy control group: low birth weight (OR=26.385; 95\%), Premature (OR=16.116; 95\%), residence
( $O R=6.892$; 95\%), consanguineous marriage ( $O R=9.500$; 95\%), maternal hypertension ( $O R=5.444$; 95\%), miscarriage ( $O R=3.244$; 95\%), primipara (OR=3.488; 95\%), x-ray exposure (OR=8.609; 95\%), family history (OR=11.159; 95\%), father smoking (OR=3.045; 95\%).

Conclusions and Recommendations: According to the study there are many risk factors associated with hypospadias, such as low birth weight, premature residence, consanguineous marriage, maternal hypertension, history of miscarriage, primipara, x-ray exposure, family history, father smoking. The study recommends that pregnant women stick to the schedule of prenatal care and follow-up visits.

