

New insights towards the etiology of a common birth defect; hypospadias

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Editorial

Birth defect happens in about 3% of all live deliveries and constitutes an important determinant of childhood morbidity as well as adulthood disability.^{1,2} Studying the epidemiological trends of such conditions can help health care providers to better understand their pathogenesis, perform etiologic and outcome researches, and determine health services needs.

Hypospadias is the most frequent birth anomaly of the penis. The condition is characterized by a urethral meatus that is located proximal to the normal location on the ventral aspect of the penis. It is the second most common genital abnormality (after undescended testis) in male newborns.³ Other anomalies that may be associated with hypospadias include hydrocele, meatal stenosis and undescended testis. When complications happen, these can be devastating for both patient morbidity as well as family psychological trauma. On the other hand, in the past two decades, concern has been raised over a possible increase in disorders of the male reproductive tract, including undescended testis, hypospadias, testicular cancer and impaired semen quality. It has been postulated that these disorders are associated with each other and share the same pathogenesis during fetal life and described as the testicular dysgenesis syndrome (TDS).⁴

Differences in the prevalence of birth defects may result from different underlying genetic predisposing factors. Some studies support the hypothesis that older maternal age and preexisting diabetes were associated with increased potential of hypospadias among male offspring.⁵

Placental dysfunction in early gestation may play an important role in the development of hypospadias due to the strong relationship between the occurrence of hypospadias and early growth retardation with higher placenta-to-fetal ration.⁶

I am excited to have an international forum to exchange ideas and opinions that strive for a better understanding of this common birth defect to help our children and families.

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Conflicts of interest

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