

DEVELOPMENT

Hypospadias linked with maternal hypertension

The babies of mothers with untreated hypertension, or hypertension treated late during pregnancy, are at increased risk of hypospadias, according to new findings published in *Obstetrics and Gynecology*.

Previous findings regarding the link between maternal hypertension and hypospadias, and whether specific antihypertensive medications affect the risk, have been inconclusive. Alissa Van Zutphen and colleagues designed a population-based case-control study to address this issue.

The study included the mothers of 2,131 children with severe hypospadias (case) and 5,129 mothers of nonmalformed male children (control). Trained interviewers conducted telephone interviews with the mothers within 24 months of their child's birth. The women were asked about the diagnosis, timing and treatment of hypertension in the 3-month period before conception and during pregnancy.

The researchers found that 2.3% of case and 1.4% of control mothers received antihypertensive therapy early in their pregnancy, 2.1% of case and 0.6% of control mothers underwent late treatment and 14.8% of case and 7.7% of control mothers had untreated hypertension. Nonselective β -blockers were associated with an increased risk of hypospadias.

Van Zutphen and co-workers concluded that untreated maternal hypertension and late initiation of treatment are associated with hypospadias in the children of these mothers. "This study contributes new data on the risks and relative safety of maternal hypertension and its treatment during pregnancy," write the authors.

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Original article Van Zutphen, A. R. *et al.* Maternal hypertension, medication use, and hypospadias in the National Birth Defects Prevention Study. *Obstet. Gynecol.* doi:10.1097/AOG.000000000000103