10-YEAR FOLLOW-UP OF THE TERATOGENIC EFFECTS AND NEUROCOGNITIVE DEVELOPMENT AFTER PRENATAL ACE-INHIBITOR EXPOSURE: A CASE REPORT

Background
Angiotensin-converting enzyme inhibitors (ACE-inhibitors) are among the most frequently prescribed antihypertensive drugs (1-4). Ingestion during pregnancy has a known increased risk of fetopathy, with well-described congenital malformations (2,3,5,6). Until now, little is known about the long-term outcome and the impact on a child’s life. (7,8) The objective of this case report is to analyze long term outcome following prenatal exposure to ACE-inhibitors and describe the subsequent impact.

Case-report

• 10-year-old child in follow-up for almost a decade at Ghent University Hospital.

• During his fetal period, his mother suffered malignant hypertension and had to continue her prescribed ACE-inhibitors despite known teratogenic effects.

- Born with hypocalvaria (i.e. incompletely formed skull bones) as well as severe abnormalities of the central nervous system, resulting in motor impairment (including a right-sided paresis due to sequel of cortical hemorrhage) as well as developmental delay.

- Initial need for dialysis, renal function recovered partially, but caused the need for dialysis and kidney transplantation at the age of 4-years without post-operative complications and without further complications after discharge.

Discussion
Renal hypoplasia is well known in newborns prenatally exposed to ACE-inhibition, but there is a gap in knowledge on other organs and long-term prognosis.

This case documents that other organs are equally involved, and that long-term neurocognitive development is compromised in children having endured fetal exposure to ACE-inhibitors.

References