CHRONIC KIDNEY DISEASE

Early CKD increases the risk of adverse outcomes in pregnancy

Chronic kidney disease (CKD), even early stages of the disease, increases the risk of adverse pregnancy-related outcomes according to new research. The study, performed in the Materno-Fetal Medicine Unit, Turin, Italy, demonstrated that patients with stage 1 CKD had significantly worse pregnancy-related outcomes than patients with low-risk pregnancies. “We hope that our study will incite other groups to focus attention on early stages of CKD, which would result in better evidence-based counseling

in pregnancy,” explains consultant nephrologist Giorgia Barbara Piccoli, corresponding author at the Unit of Nephrology, San Luigi Hospital.

The early stages of CKD are frequently undetected owing to a lack of symptoms. Unless the condition is specifically sought after, diagnosis is difficult, and diagnosis of this condition is more challenging in pregnant women since serum creatinine levels drop during early pregnancy. To investigate the effect of CKD on pregnancy outcomes, Piccoli and colleagues followed 91 patients with CKD and 267 women with low-risk pregnancies from referral to 1 month after delivery. “Fortunately, as hard outcomes, such as materno-fetal death and initiation of dialysis were rare or absent in our series, surrogate markers, such as prematurity, were studied,” explains Piccoli.

The researchers found that adverse pregnancy-related outcomes, including cesarean section, pre-term delivery, reduced fetal weight, and need for neonatal intensive care, were more common in patients with CKD than in low-risk individuals. The increased risks of adverse outcomes were significant even for patients with stage 1 CKD. Odds ratios for cesarean section, preterm

delivery <37 weeks, and need for neonatal intensive care in patients with stage 1 CKD compared with controls were 4.37 (95% CI 2.38–8.02), 9.75 (4.25–22.39) and 15.17 (3.9–59.04), respectively.

“These findings strongly support a policy of early referral of CKD patients, preconception counseling and strict follow-up of women with kidney disease, even in the absence of impaired renal function,” say the researchers. Piccoli also believes that the study highlights the usefulness of pregnancy as a tool for the early diagnosis of CKD, since 21 new cases of CKD were diagnosed during the study.

The researchers hope that their findings will help identify a minimum requirement for information on the follow-up of normal and ‘high-risk’ pregnancies. They also hope that analyses of new cases of CKD might result in a new diagnostic and referral policy, which will improve the referral of at-risk patients to tertiary centers such as theirs.

Carolyn McSharry

Original article Piccoli, G. B. *et al.* Pregnancy and chronic kidney disease: a challenge in all CKD stages. *Clin. J. Am. Soc. Nephrol.* 5, 844–855 (2010)