

What is a urinoma and how does it happen?

The fetal kidneys produce urine, which drains through the ureters to the bladder. Occasionally, there is an obstruction to the flow of urine out of the kidney which can cause the fetal kidney to rupture and cause urine to collect around the kidney instead of draining to the bladder. This collection of fluid is called a urinoma. It is not always clear why a fetal urinoma occurs. The most common causes of a urinoma are blockages to urine flow either from posterior urethral valves (an obstructing membrane in the urethra) or ureteropelvic junction obstruction (blockage of the first part of the ureter).

How common is a urinoma?

A urinoma is an uncommon finding during the prenatal period. A urinoma can not be prevented.

How is it detected?

A fetal urinoma may be diagnosed during pregnancy using ultrasound. These are typically diagnosed in the third trimester at the time of a routine examination. Most commonly, only one kidney is affected, but occasionally both kidneys have urinomas.

How is it managed?

Once a urinoma is suspected, additional ultrasound examinations will be scheduled on a regular basis to check on the size of the urinoma, to evaluate the other kidney, the growth of the baby, and the amniotic fluid volume. Urinomas can increase or decrease in size and sometimes disappear during pregnancy. There are currently no ultrasound findings that can predict normal kidney function.

During fetal life, urinomas usually don't need any specific treatment, however, if they become very large, it may be necessary to drain them. Occasionally, a fetal MRI may be recommended.

What does it mean for my baby after it is born?

The majority of babies with urinomas can be delivered vaginally and will have a good outcome. Although the affected kidney is likely to have limited function, as long as the baby has two kidneys and the other one is functioning well, normal kidney function is expected as the normal kidney will take over the function of the affected kidney.

After birth, additional testing will be performed to understand what caused the urinoma and to assess the function of the affected kidney. These additional tests may include MRI, CT scan, ultrasound functional testing of the kidneys, and blood testing.

If the obstruction to urine flow remains, and the kidney function is good, surgery may be needed. The classic surgery is called pyeloplasty. In this surgery, the obstruction is removed and the ureter is reattached to the kidney.

If posterior urethral valves are identified, they need to be surgically incised. After surgery, the baby's kidney function will be monitored throughout childhood and adolescence.

What other questions should I ask?

- Is only one kidney affected? Is the other kidney normal?
- Are there any additional abnormalities seen?
- How often will I have ultrasound examinations done?
- Where should my pregnancy be followed?
- Where should I deliver?
- Where will the baby receive the best care after it is born?
- Can I meet the team of doctors who will be assisting my baby when it is born, prior to delivery?

Last updated June 2023