

Patient Care > Urachal Remnant

Definition

The **urachus** is a tube that connects the developing urinary bladder to the **umbilicus** during fetal development and closes before birth. If this closure fails to take place, a urachal cyst or remnant remains. Urachal remnants are most often seen in infancy and early childhood, rarely in the neonatal period. The most common symptom of a urachal remnant is a thin, light yellow, watery discharge from the umbilicus.

Cause

In fetuses, the **urachus** lies between the umbilical arteries and connects the urinary bladder with the umbilicus. During the fourth and fifth month of fetal development, the urachus closes and becomes a ligament that stretches from umbilicus to the bladder. If the urachus does not close completely, three things can happen:

A. Urachal cyst - This happens in 30% of cases. The urachus closes without any opening to the bladder. A residual cyst, or sac of fluid can form underneath the umbilicus where the urachus closed. This cyst usually is noticed as a tender, swollen mass at the umbilicus that can often get infected.

B. Urachal sinus - The urachus partially closes, but the remainder of the tube opens to the umbilicus and/or the bladder. Urine can drain from the umbilicus.

C. Patent urachus - This happens in 50% of cases. A communication between the bladder and umbilicus remains, called a fistula. Urine can drain from the umbilicus.

Indications for Surgery

If the urachus remains open or partially open, infection can occur in the remaining tissue. An infection can occur at any place in the remaining urachal tract, or opening. If a cyst forms, it can result in a painful, tender mass with fever. These cysts can break open into the abdominal cavity, causing severe infection. Because of the risk of infection with urachal remnants, the cysts and the entire urachal tract should be surgically removed. There is also a (small) risk for cancer developing, so surgical removal is usually advised.

Surgical Repair

The surgery is performed under general anesthesia on an outpatient basis. The child will breath gas through a mask to put them to sleep for the surgery. Once asleep, the surgeon will make an incision in the umbilicus. Through this incision, the surgeon will remove the cyst if a cyst is present and will remove the

remaining urachal tissue. If an umbilical hernia is present, it will be repaired. The incision will be closed with dissolvable sutures underneath the skin, so no sutures will need to be removed later. The incision is topped with a plastic glue that seals the skin, promoting healing and preventing infection. No other dressing is needed. The child will then be brought into the recovery room where parents can be present.

Created by Keri Bailey RN, MS, CPNP

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