Urinary Tract Infection

**Definition:** Urinary tract infection is very important because it is one of the most common urogenital diseases in children. Its prevalence is related to the gender and age of the child. The peak of infection is between the ages of 2 and 6 and it is 10-30 times more in girls than in boys.

**Effective factors:**

- **Body structure:** It is more common in girls due to the short length of the urethra and the proximity of the urethra to the anus, and it is more common in boys until they are circumcised.
- **Incomplete emptying of the bladder:** The pressure of bladder filling and reduced blood flow increases the risk of infection.
- **Constipation in children:** Another factor in the incidence of urinary tract infections.
- **Changing the environment of the bladder:** Drinking plenty of fluids, including natural juices, helps prevent urinary tract infections.

**Symptoms:** Symptoms in children depend on the age and gender of the child. Children under 2 years old are often associated with gastrointestinal problems, abdominal pain, underweight, vomiting, diarrhea, jaundice, fever, bad-smelling urine, restlessness, and bloating.

In children over 2 years old, nocturia, daytime urinary incontinence, fever, bad-smelling urine, frequent urination, and burning sensation may be mentioned.

**Diagnosis:**

Diagnosis of urinary tract infections in children is based on physical examinations, simple urine tests, and urine cultures.

The definitive diagnosis of a urinary tract infection is made by a urine test and culture. It is very difficult to get a urine sample correctly in a child under 2 years old. Failure to properly wash the genital area can falsely indicate a urinary tract infection. In a child over 2 years old, a urine sample taken from the middle of the morning urine is suitable. The most accurate method of testing in children under 2 years old involves taking a sample with a syringe from above the genital area (directly from the bladder) by a doctor, and using a urinary catheter in children over 2 years old.

**Treatment:**

Treatment goals in children with urinary tract infections:

- Treating the infection
- Identifying predisposing factors and reducing the probability of recurrence of infection
- Maintaining kidney function

The drug is determined and treatment is started based on the urine culture response.

In structural defects of the urinary system, reconstructive surgery or receiving prophylactic doses of antibiotics and careful follow-up and periodic urinalysis may be required to prevent subsequent
infections. The disease improves well and kidney damage is prevented by early and adequate treatment after diagnosis.

Proper collection of urine samples is very important: Before taking a sample in a baby girl, first wash and dry the baby's genital area with soap and water properly (from front to back), if you use a urine bag to take a urine sample, the bag is attached to the baby's genital area (in boys, the penis and urethra are completely inside the bag and in girls, it is fully open between the legs) and sent to the laboratory immediately after urinating.

Refer to your doctor if you have any of the following symptoms:

- Urgency in urination
- Incontinence in a child who has the ability to control urination
- Bad-smelling urine

Training and prevention

- Increase fluid intake in the child
- Eat more animal protein (red meat) and sour juices (citrus) to acidify the bladder environment.
- If you are not able to take a urine sample to the lab immediately after urinating, you can refrigerate it for up to 24 hours.
- Drinking soft drinks and coffee by the child is forbidden because it has a stimulating effect on the bladder mucosa.
- Eat more fiber-rich foods (fresh fruits and vegetables) that increase intestine movements and prevent constipation.
- Avoid wearing tight underwear and nylon plastic for the baby
- If you take the medicine at home, it is better to give the medicine to the child at night before sleeping so that it stays in the bladder for a longer time.
- If the child cannot take the pill, you can powder it and give it to the child with 5 cc (one tablespoon) of fruit juice.
- If the fever only lasted 2 or 3 days and was asymptomatic, be sure to refer to a doctor and have a urine test.

Circumcision is one of the best ways to prevent urinary tract infections in boys.

If you have any questions or ambiguities, call the following number:

023-33460077, Pediatric ward of Amir-al-Momenin Hospital