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Epididymitis/Orchitis

Patient and family information, brought to you by the Education Committee of APSA

Overview - “What is it?”

Epididymitis is inflammation of the epididymis. The epididymis is a long coiled tube that connects the testicles to the urethra in the penis. Its function is to store and transport sperm from the testicle to the penis. It is located on the top and back portions of the testicle.

- Epididymitis is usually caused by an infection, either bacterial or viral. The most common cause of bacterial epididymitis in sexually active males is gonorrhea and chlamydia. Sometimes the inflammation can be caused by an abnormal response of the immune system (autoimmune).
- Viruses that can cause this problem include mumps, coxsackie, echovirus and adenovirus.
- Autoimmune disorders (a condition that affects the normal immune system that recognizes cells from foreign versus self) such as Henoch-Schönlein purpura or Kawasaki disease can also cause epididymitis.
- In males who are not sexually active, epididymitis can be caused by urinary tract infections (bladder infections) or underlying urinary tract abnormalities.
- Examples of urinary tract abnormalities include blockage of the tube where urine travels (such as posterior urethral valves) or when the bladder does not empty completely.
- Very rarely, a blood stream infection (sepsis) can become so bad that the infection spreads to the epididymis.
- Epididymitis can occur after undergoing urologic procedures or instrumentation.
- Orchitis is inflammation of the testicle. It usually occurs as an extension of epididymitis, though sometimes it occurs by itself. Mumps is a common cause of orchitis in boys who have gone through puberty.

Signs and Symptoms - “What symptoms will my child have?”

The most common symptom is scrotal pain. The pain usually develops over the course of a few days, increasing in intensity. In epididymitis, the pain is located on the backside of the scrotum. In orchitis, the entire testicle is painful.

Other symptoms include swelling and redness of the scrotum. This usually only occurs on one side but may occur on both depending on the extent of the inflammation.

Sometimes boys experience symptoms similar to a urinary tract infection such as burning with urination, feeling like one has to urinate all the time.

Less common symptoms are fevers or vomiting, though they can occur with both epididymitis or orchitis.

Diagnosis - “What tests are done to find out what my child has?”

Epididymitis and orchitis can usually be diagnosed with a thorough **history and physical exam**.

Your child’s physician may also order a **urine test** to see if there is an infection in the urinary tract.

An **ultrasound** may also be performed in order to rule out other serious diseases such as testicular torsion (when the testicle twists around its blood supply) and confirm the diagnosis of epididymitis and/or orchitis.

Treatment - “What will be done to make my child better?”

The treatment for epididymitis and orchitis is mostly supportive, which means that surgery is not needed. If there is concern for infection, antibiotics will be provided by your child’s physician. Pain is usually managed with over-the-counter medications such as acetaminophen (Tylenol) and ibuprofen (Advil/Motrin).

Home Care - “What do I need to do once my child goes home?”

- Bedrest and scrotal elevation are effective at reducing pain. Scrotal elevation can be accomplished using folded sheets or a small pillow.
- Over-the-counter pain medication such as acetaminophen (Tylenol) or ibuprofen (Motrin or Advil) can be used to treat symptoms. Most cases of epididymitis resolve over the course of a few days with no lasting effects.

Long-Term Outcome - “Are there future conditions to worry about?”

- Most cases of epididymitis resolve over the course of a few days with no lasting effects.
- If there is an anatomical issue such as an obstruction, chronic or recurrent epididymitis may develop. Your child may need surgery to correct the anatomical abnormality.
- In rare cases, orchitis can decrease the amount and quality of sperm, resulting in infertility. Most research has demonstrated that this is temporary and improves with time.

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