Urethral stricture

This information sheet from Great Ormond Street Hospital explains the causes, symptoms and treatment of urethral stricture and where to get help.

Urethral stricture is a narrowing of part, or all of, the urethra (the tube that carries urine outside the body from the bladder). Depending on the location and length of the stricture, it can affect a child’s ability to pass urine, either reducing the rate of flow or blocking the flow altogether.

Urethral stricture is much more common in boys than girls. This is because boys have a longer urethra (about 20 centimetres) that opens at the end of the penis. In girls, the urethra is usually less than four centimetres long and exits the body between the clitoris and the vagina.

What causes urethral stricture?

Urethral stricture is usually caused by scar tissue forming near the urethra, often after surgery or illness. As the scar tissue contracts, it can cause the urethra to shorten and narrow.

Other causes of urethral stricture include:
- direct trauma
- urinary tract infections
- pressure from a tumour
- underdevelopment while in the womb – rarely, urethral stricture can be present from birth (congenital)

What are the signs and symptoms of urethral stricture?

In very mild cases, a child may not have any signs and symptoms. However, the longer and more severe the stricture, they may:
- have blood in their urine and/or semen
- urinate less frequently
- experience pain when urinating
- have pain in the pelvic or lower abdomen region
It is important to seek treatment straight away if the child is finding it difficult to empty their bladder regularly (urinary retention). This is because urine building up in the bladder will increase their risk of infection and, occasionally, kidney damage.

How is urethral stricture usually diagnosed?
As well as a physical examination, a doctor will need to carry out a cystoscopy to confirm a diagnosis of urethral stricture. This is when a thin, flexible tube containing a camera and light is inserted into the child’s bladder. It is carried out while the child is under general anaesthetic but should only last about 30 minutes.

How is urethral stricture usually treated?
How a child is treated will depend on the length and location of the stricture, and the severity of their signs and symptoms.
In cases of minor stricture, the urethra can be dilated (made wider) while the child is having a cystoscopy. The urologist might use a stent (plastic rod) to stretch the stricture or make a small incision with a knife (through a telescope) to widen the stricture.
However, these treatments do not always offer a permanent solution. The urethra can become narrow again (the stricture may re-form) after a period of time.

In more complex cases, the removal and reconstruction of a section of the urethra (known as an urethroplasty) may be required. If the cause of the stricture is scar tissue, this may also be removed during the operation.
Insertion of a catheter is normal at the time of the procedure as this gives the urethra time to heal after the operation. The catheter will be removed a few days after the procedure – the exact timing of removal should be discussed with the surgeon as it can vary with different procedures.

What happens next?
In most cases, a child will not experience any recurrence of urethral stricture. However, the eventual outcome of the treatment will depend on the underlying cause of the stricture.

Notes