Urinary Outflow Obstruction

Urine outflow disorder is a fairly common problem. The problem itself can be often resolved quickly and effectively, but sometimes urine accumulation is just a symptom of a serious illness that is difficult to treat.

Causes

Urine outflow may be disrupted in any part of the urinary tract. While this condition may be subtle in a kidney or a ureter (they are paired organs), its location in bladder or urethra may be linked to a complete arrest of urination.

**Urinary stones**

Urinary stone that blocks some part of urinary tract can cause urine outflow obstruction. It usually happens in renal pelvis or ureter. This condition is typically accompanied by renal colic.

**Enlarged prostate**

Benign prostate hyperplasia is common in males above the age of sixty. Hyperplastic prostatic tissue narrows urethra and obstructs urine flow. This conditions manifests by frequent urination at night and discontinuous urination.

**Tumors of the urinary tract**

Narrowing and obstruction of urinary tract can happen because of tumors like kidney cancer and bladder cancer.

**Other local tumors**

By male patients it is important to mention prostate cancer. It leads to narrowing of urethra just below urinary bladder. In women urine blockage may be caused by growth of gynecological tumors like ovarian cancer and uterine cancer.

**Urethra strictures**

Diseases associated with narrowing of urethra (usually post-inflammatory narrowing after repeated infections and rarely urethral tumors) impede drainage of urine from the bladder and cause symptoms like burning pain during urination.

**Blood clots**

Numerous pathologies lead to bleeding into urinary tract and blood clots can cause obstruction and urine retention.

**Foreign bodies**
This issue includes mainly objects deliberately inserted into the urethra to provoke sexual satisfaction.

**Pregnancy**

Enlarged uterus in pregnant women can oppress surrounding organs including urinary tract and thus impede urine outflow.

**Vesicoureteral reflux (VUR)**

Vesicoureteral reflux is a functional disorder that occurs typically in children. It is caused by incorrect functional and anatomic relationship of junction between ureter and bladder. It leads to urine influx from bladder back into ureters.

**Spinal Cord Injury**

Acute spinal cord injury tends to result in failure of bladder innervation and it temporarily loses the ability to expel urine. This condition is referred to as *spinal shock* and it lasts for about fourteen days. After this period, at least involuntary reflex recovers that allows bladder to empty itself when being full.

**Symptoms**

Symptoms depend on the cause and location of urinary retention. The obstruction may be associated with urinary tract muscular cramps (*renal colic*), which are caused by contractions of smooth muscles trying to remove the obstacle. Stagnating urine becomes an ideal breeding ground for bacteria and that causes recurrent *urinary tract infections*. If obstruction is located in upper part of urinary tract (upper ureter, renal pelvis), the accumulation of urine may oppress kidney and cause so-called *hydronephrosis* with all sorts of complications (*kidney infection, acute renal failure)*.

**Treatment**

It should be as fast as possible to ensure drainage of urine by clearing urinary tract or by creating a temporary or permanent *nephrostomy*. 