Dr. Aso – Urinary Symptoms

5th Stage

**Haematuria**

The presence of blood in the urine (haematuria) is always abnormal and may be the only indication of pathology in the urinary tract. False positive stick tests and the discolored urine caused by beetroot and certain drugs (e.g. dindevan, pynidium and furadantin) can be distinguished from haematuria by the absence of red blood cells on urinary microscopy.

Haematuria may be intermittent or persistent. Blood appearing at the beginning of the urinary stream indicates a lower urinary tract cause, while uniform staining throughout the stream points to a cause higher up. All patients with haematuria need investigation even if they are taking anticoagulant drugs.

**Pain**

1. **Renal pain**

   Inflammation and acute obstruction to the flow of urine from the renal pelvis are liable to cause pain that is typically felt as a deep-seated, sickening ache in the loin. It is probably the result of stretching the capsule of the kidney. However calculi in the kidney can also be painful in the absence of infection. Slow-growing masses such as tumors or cysts are not usually painful unless they are very large. When the cause is inflammatory there may be local deep tenderness and occasionally spasm of the psoas muscle.

2. **Ureteric colic**

   This is an acute pain felt in the loin and radiating to the ipsilateral iliac fossa and genitalia. The patient often rolls around in agony as waves of excruciating sharp pain are imposed upon a continuing background of discomfort. Contrast this with the patient suffering from peritoneal pain who lies still to avoid exacerbating the pain by movement. Ureteric colic is caused by the passage of a foreign body, usually a stone.

3. **Bladder pain**

   Bladder pain is felt as a suprapubic discomfort made worse by bladder filling. In men, a sharp pain misleadingly referred to the tip of the penis may be the result of irritation of the trigone of the bladder. Severe inflammation of the bladder can cause an extreme wrenching discomfort at the end of micturition. This symptom of bladder stone was recognized by the old lithotomists who called it strangury.
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4. **Prostatic and seminal vesicle pain**

This is felt as a penetrating ache in the perineum and rectum. There may be associated discomfort in the groin. Pelvic pain is often blamed on chronic prostatitis but it occurs in both men and women and is difficult to treat successfully.

5. **Urethral pain**

Urethral pain is a scalding or burning pain felt in the vulva or penis especially during voiding.

**ALTERED BLADDER FUNCTIONS**

The normal bladder has two distinct phases of function. During the filling phase the bladder acts as a reservoir to collect urine until it is emptied in the voiding phase. Inappropriate contraction of the bladder detrusor muscle during filling (instability) is perceived as a sensation of urgency to pass urine. The patient may have frequency of micturition and a tendency to urge incontinence. Sleep may be disturbed by nocturia.

**Frequency**

It is one of the most common urologic symptoms. The normal adult voids five or six times per day, with a volume of approximately 300 ml with each void. Urinary frequency is caused either by increased urinary output (polyuria) or by decreased bladder capacity. If voiding is noted to occur in large amounts frequently, the patient has polyuria and should be evaluated for diabetes mellitus, diabetes insipidus, or excessive fluid ingestion. Causes of decreased bladder capacity include bladder outlet obstruction with decreased compliance, increase residual urine, and/or decreased functional capacity as a result of irritation.

**Urgency**

It is the strong, sudden impulse to void. It may be secondary to an inflammatory condition, such as acute bacterial cystitis.

**Dysuria**

It is painful urination that is usually caused by inflammation. This pain is usually not felt over the bladder but is commonly referred to the urethral meatus. Pain occurring at the start of urination may indicate urethral pathology, whereas pain occurring at the end of micturition (strangury) is usually of bladder origin. Dysuria is frequently accompanied by frequency and urgency.
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**Straining**

Decreased force of urination is usually secondary to bladder outlet obstruction and commonly results from benign prostatic hyperplasia or urethral stricture.

**Nocturia**

It is nocturnal frequency. Normally, adults rise no more than twice at night to void. Nocturia without frequency may occur in the patient with congestive heart failure and peripheral edema in whom the intravascular volume and urine output increase when the patient is supine. Nocturia may also occur in people who drink large amounts of liquid in the evening. In the absence of these factors, nocturia signifies a problem with bladder function secondary to either urinary outlet obstruction and/or decreased bladder compliance.

**Urinary hesitancy**

It refers to a delay in the start of micturition. Normally urination begins within a second after relaxing the urinary sphincter, but may be delayed in men with bladder outlet obstruction.

**Intermittency**

It refers to involuntary starting-stopping of urinary stream. It most commonly results from prostatic obstruction with intermittent occlusion of the urinary stream by the lateral prostatic lobes.

**Postvoid dribbling**

It refers to the terminal release of drops of urine at the end of micturition. This is secondary to a small amount of residual urine in either the bulbar or prostatic urethra that is normally is “milked back” into the bladder at the end of micturition.

Straining refers to the use of abdominal musculature to urinate. Normally, it is unnecessary to perform a valsala maneuver except at the end of urination. Increased straining during micturition is a symptom of bladder outlet obstruction.

**Incontinence**

It is the involuntary loss of urine. A careful history of the incontinent patient often determines the etiology. Urinary incontinence can be subdivided into four categories:
A. Continuous incontinence:

Continuous incontinence refers to the involuntary loss of urine at all times and in all positions. Continuous incontinence is most commonly caused by a urinary tract fistula that bypasses the urethral sphincter. The most common type of fistula that results in urinary incontinence is a vesicovaginal fistula, usually secondary to gynecological surgery, radiation, or obstetric trauma. Less commonly, ureterovaginal fistulas may occur from similar etiologies.

B. Stress incontinence:

Stress urinary incontinence is the sudden leakage of urine with coughing, sneezing, exercise, or other activities that increase intra-abdominal pressure. During these activities, intra-abdominal pressure rises transiently above urethral resistance, resulting in a sudden, usually small amount of urinary leakage.

Stress incontinence is most commonly seen in women after childbearing or menopause and is related to a loss of anterior vaginal support. Stress incontinence is also observed in men after prostatic surgery, most commonly radical prostatectomy, in which there may be injury to the external urethral sphincter.

C. Urgency incontinence:

Urgency incontinence is the precipitous loss of urine preceded by a strong urge to void. This symptom is commonly observed in patients with cystitis, neurogenic bladder, and advanced bladder outlet obstruction with secondary loss of bladder compliance. It is important to distinguish urgency incontinence from stress incontinence for two reasons:

First: urgency incontinence is usually secondary to underlying pathology that should be identified. Treatment of the primary problem, such as infection or bladder outlet obstruction, may result in resolution of urgency incontinence.

Second: patients with urgency incontinence usually are not amenable to surgical correction but, rather, are more appropriately treated with pharmacological agents that either increase bladder compliance and/or increase urethral resistance.

D. Overflow urinary incontinence:

Overflow urinary incontinence, often called paradoxical incontinence, is secondary to advanced urinary retention and high residual urine volumes. In affected patients, the bladder is chronically distended and never empties completely. Urine may dribble out in small amounts as
the bladder overflows. This is particularly likely to occur at night, when the patient is less likely to inhibit urinary leakage.

**Enurises**

Enurises is urinary incontinence that occurs during sleep. It occurs normally in children up to 3 years of age but persists in about 15% of children at age 5 and about 1% of children at age 15.

Enurises must be distinguished from continuous incontinence, which occurs during the day as well as at night and which, in a young girl, usually indicates the presence of an ectopic ureter.