#### Mini-Medical School



# What is hydronephrosis? 何謂水腎?(英文)

#### Definition

Hydronephrosis means abnormal dilatation of the collecting system of the kidney (renal pelvis). It can be classified according to its severity.

- Mild: separation of renal pelvis for more than 1cm without enlargement
- Moderate: mild hydronephrosis with renal pelvis enlargement
- Severe: moderate hydronephrosis with thinning of renal cortex

## Etiology

### Obstructive hydronephrosis:

- 1. Ureteral obstruction: stone, tumor, blood clot, and ureteral stenosis
- 2. Bladder obstruction: benign prostate hyperplasia, neurogenic bladder caused by diabetes mellitus or stroke
- 3. External compression: retroperitoneal tumor or lymph nodes, uterine prolapse

### Non-obstructive hydronephrosis:

- 1. Congenital megapelvis
- 2. Chronic pyelonephritis
- 3. Dead space left after the surgery for staghorn stone
- 4. Vesicoureteric reflux
- 5. Retroperitoneal fibrosis
- 6. Besides, mild hydronephrosis may occur during pregnancy or bladder distention.

### **Symptoms**

1. Unilateral flank pain and knocking tenderness are common in acute obstruction. Hypertension, fever, nausea, vomiting, and hematuria

- are less likely.
- 2. There is often no obvious symptom in chronic obstruction. The symptom is usually related to its etiology.
- 3. Bilateral obstruction may induce uremia.

## Diagnosis

Diagnosis can be made by ultrasound, computed tomography (CT), or intravenous pyelography (IVP).

## Prognosis and treatment

Obstruction will impair renal function. Prolonged obstruction may lead to irreversible thinning of renal parenchyma. Once urinary tract infection occurs, it is difficult to cure. Treatment should be aimed to find out the cause of hydronephrosis and relieve obstruction.

若有任何疑問,請不吝與我們聯絡

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