

RENAL STONE

Dr. Nakum Pratik K.

INTRODUCTION

- Kidney stones, Also known as Renal calculus or Nephrolithiasis
- It is very small, hard deposits of mineral and Acid salts on the inner surfaces of the kidney.
- If stone grow to sufficient size they can cause blockage of the ureter.
- Development of the stones is related to decreased excretion of stone forming components such as calcium, oxalate, urate, cystine, xanthine and phosphate.

DEFINITION:

 A stone in the kidney (or lower down to in the urinary tract)called a kidney stone.





1) ENVIRONMENTAL AND DIETERY CAUSE

- Low urine volumes, high ambient temperature, low fluid intake.
- Diet: High protein ,High sodium ,low calcium
- High sodium excretion
- High oxalate excretion
- High urate excretion.

2) AQUIRED CAUSES

- Hypercalcemia of any cause
- Ileal disease or resection (increase oxalate Absorption and urinary excretion)
- Renal tubular acidosis Type-1

3. CONGENITAL AND INHERITED CAUSES

- Familial hypercalciura
- Medullary sponge kidney
- Renal tubular acidosis type 1
- Primary hyperoxaluria

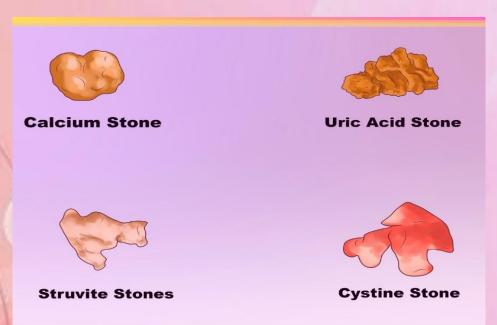
PATHOPHYSIOLOGY OR DEVELOPMENT OF RENAL STONE

- Renal calculi consist of aggregates of crystals, usually containing calcium or phosphate in combination with small amounts of proteins and glycoproteins.
- Most calculi occurs in healthy young men, in whom investigations reveals no clear predisposing cause.
- Renal stones vary greatly in size, from sand like particles anywhere in the urinary tract to large, round stones in the bladder.
- In developing countries, Bladder stones are common, particularly in children.
- In developed countries the incidence of developing bladder stone is low.
- Deposits of calcium may be present throughout the renal parenchyma, giving rise to fine calcification within it (Nephrocalcinosis) especially in patient with renal tubular acidosis, hyperpara-thyroidism, vitamin D intoxication and healed renal tuberculosis.





- 1.Calcium oxalate stones
- 2. calcium phosphate Stone
- 3. Struvite stone
- 4. uric acid stones
- 5.cystine stones



CLINICAL FEATURES:

- 1. Severe pain usually in the side of the Abdomen.
- 2. Pain and Burning occur during urination
- 3. Pain in the back and flank region
- 4. Nausea or vomiting
- 5. Hematuria (Blood in the urine)
- 6. urinary tract obstruction
- 7. Renal colic and intermittent dull pain in the loin or back.
- 8. Fever and chills



INVESTIGATION:

- 1. Ultrasound
- 2. Non-Invasive test
- 3.Intravenous Urography
- 4. X-Ray{Intravenous Pyelogram}
- 5. CT Urogram

HOMOEOPATHIC MEDICINES:

1.Berberis Vulgaris

 Head remedy for renal colic, especially when pain is on the left side and extends from kidney to urethra with urging to urinate.

2. Ocimum canum

- It is Agonising and twisting pain which makes the patient scream.
- Red urine with brieck dust or white sediments
 .Urine turbid ,red and bloody.

3. Lycopodium Clavatum

 In chronic cases when the acute pain is over, there is flatulance in the abdomen, specially right side with red sand in urine.

4. Sarsaparilla

- For white sediments
- Urine becomes turbid like Clay water immediately after passing.
- Much pain at the end of urinating.
- Urine scanty ,slimy and flank.
- Tenesmus of bladder.

5.Hydrangea Arborescens

- "STONE BREAKING REMEDY"
- Dribbling of bloody urine.
- White Amorphous salts deposite in urine.

6.Paraira Brava

- The urinary symptoms one most important
- Useful In renal colic ,pain going down to thigh during efforts to urinate.

 When All other remedies fail, This may be given in mother tincture in hot water in five drops doses.

7. Natrum Phosphoricum:

- Prevents formation of calculi and keeps the oxalate of lime in solution and does not allow them to harden liver.
- Given in IX Trituration four times daily.

8.Terebinthina:

- Violent drawing pain in the region of kidneys
- Violent burning and cutting pain in urine.
- Urine is red , Black or smoky in appearance .

9. cantharis:

- Inflammation of kidney, bladder and urethra.
- Sharp tearing and incisive pain in kidney.
- Difficult emission of urine; emission of blood drop by drop.

10. UrticaUrens:

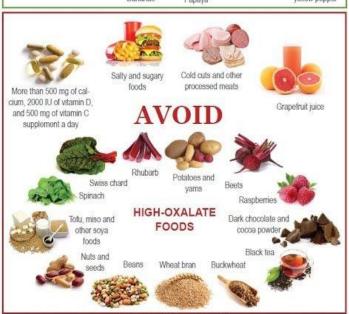
- Stone in the kidney.
- Urine is thick.
- It expels gravel and stone from the kidneys.

How to prevent kidney stones??

- Stay hydrated. Drinking more amount of water is the best way to prevent Kidney stones.
- Eat more Calcium-Rich Foods.
- Eat less Sodium
- Eat Fewer Oxalate Rich Foods like Spinach, Chocolate, Tea , Sweet potatoes , coffee etc.
- Eat Less animal Protein like Beef, Poultry, Fish, pork etc.

DIET AND KIDNEY STONES





© OsteoConnections, UHN Osteoporosis Program 2014

Eating RIGHT in **KIDNEY STONE**



Sources

- Devidson's principles and practice of medicine
- Medicine by George mathew