Dss iet in urinary stones

a. Bladder stone (vesicle stone)

~~1.~~ More common in Bratin

[2.] ~~Asia (poor classes)~~

2.[3.] Men & Boys due to prostatic infection

b. Renal calculi: in all countries

Types of stones

a. Calcium stones 95%

- Calcium Oxalate
- Calcium phosphate

b. Uric acid salt stone 3-4%

c. Cystin stone

Riske factors:

a. Metabolic end products

b. Dietary

c. Stagnation & infection of urine

d. Plasma PH

1. Alkalin urine → ca phosphate stone
2. Acidic urine → other stones

Condition associated with Renal Calculi

a. Acquired disorder

- Obstruction of urinary tract
- Inflations

- Excessive sodium intake
- Hyper calciumia
- Hyper uricamia
- Hyper oxalimia

b. Inherited

1. Xanthenes urea
2. Cystin urea — congenital abnormality
3. Gout

Condition associated with hyper Calciumia

1. High consumption of milk (pt with peptic ulcer) or high dietary calcium intake
2. Hyper parathyroidism
3. Vitamin D poisoning
4. Bed ridden

Condition associated with hyperoxaletmia

→ High dietary intake of oxalic acid e.g. food rish in oxalate tea, tomatoes, spinach, some fruits, legumes.

1. Increased absorption of calcium oxalate from the gut.

Dietary treatment

- Increased fluids intake

- Alkalization of urine incase of uric acid, oxalate, cystine stone
- Acidification of urine in case of phosphate stone
- Drinking of moderate amount of milk &tea
- Decrease intake of Purine rish food (meats)
- Decrease intake of calcium rish food milk, green beans, carrots, spinach, nuts, vitamin. c & chocolate, milk products, whole grain cereals, egg, organ, meat, brain, soybean

Diet in gout and hyperuricemia

1. Gout is characteristic arthritis of single joint, often big toe, due to disorder of purine meatabolism lead to a high uric acid level in the blood (more than 6-7 mg) and deposition of urates (Na+ urate) in the tendons or cartilage or soft and bony tissue arrond joints of ear
2. It occur mostly in the middle age men 90%
3. It is rarely occur in women before menopause
4. Mor common in arban area than rural area
5. It is correlated with intaligence, social class risk factors
6. Over weight
7. Alcoholic
8. Dietary purine
9. High blood pressure

Factor predisposed to hyper uricamia & gout

a. Diminished Renal excreation
a. Renal failure
b. Drugs diuretics, asprin
c. Lead poisoning
d. Hyper thyrodism
b. Increased production of uric acid
1. Polycythemia
2. Leukemia
3. lymphoma
c. Incrased purine synthisis from nucleic acid xanthenes
d. High ingestion of dietary purine

Clinical feature of gout:

- Stabbing pain in the big toe (metatarsophangeal joints)

1. Ankle pain & big joint pain is un common at mid night

- Swellening, tender, red, hotness of joints
- Fever, loss of appetite
- High ESR and lecocytosis

Dietary treatment :

A. Increase fluid intake (up to 3500ml/day)
B. Reduction of weight if the pt. is obese or over Wight
C. Diet contain adequate complex CHO, moderate protein, low fat & free purine should be consumed.

In acute attacked :

- Avoidance of starvation or fasting because it leads to lactic acid acidosis which is lead to increase uric acid level.

- Avoidance of Alcohol consumption which is lead to increase lactic acid and inhibit renal execration of urate.
  2. Avoidance of fructose increase consumption Give rise to unstable AMP in the liver
  3. Increase uric acid level in the blood
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Foods contain rich purine (150 -1000mg/g):

- Organs e.g liver , kidney, heart, muscle, sweet bread, meat extraction (shoud be excukded) .
- Food containing moderate purine (50-150mg/100)
  which can be take can be take 2-3 time / week
  meat: fish, chicken, ,lentils, beans, peas, mushrooms, spinch
- Food containing very low purine which can be taken as desired.
- Milk and milk products
- Egg
- Vegetable soup, cabbage, green, leafy green, tomatoes, peppers
- Fruits, frish cherries, orange strawberries banana Refined cereals (rice macaroni, bread, sweet, jam, jelly, sugar, honey.
- Coffee and tea, chocolate, contain xanthenes such as coffins lead to methylurate salt should be avoided