HAEMATURIA

Introduction

- Haematuria is the presence of blood in the urine.
- Haematuria can be either gross (visible with the naked eye) or microscopic (only visible with the help of a microscope)

Signs and Symptoms

- Gross haematuria usually presents as pink, red or cola-coloured urine and is usually painless.
- Blood clots in the urine can sometimes be painful.
- Sometimes the urine may appear normal in colour but upon lab testing found to be contaminated with blood.
- Certain drugs, foods (eg. Beets, rhubarb and berries) and exercise may cause a change in urine colour, but the change in colour usually goes away within a few days.
- Regardless of the cause for haematuria, medical attention is required.

Common Causes

- **Upper and lower urinary tract infections**
  - Due to bacteria entering the body through the urethra and then multiplying in the bladder, subsequently migrating to the kidneys if treatment is not given in time.
  - Associated symptoms include painful urination, frequent passing of urine, inability to hold the urine in the bladder for long, smelly urine, fever and flank pain.

- **Renal stones**
  - Minerals in concentrated urine sometimes form crystals on the walls of the kidneys or bladder, subsequently forming hard stones.
  - These renal stones can cause flank pain which may radiate to the groin.
  - Haematuria from renal stones are due to the renal stones damaging the inner walls of the urinary tract, leading to bleeding.
Medical Topics – Haematuria

- **Enlarged prostate and prostatitis**
  - Prostate glands enlarge with age in men, causing compression of the urethra by middle age and blocking urine flow.
  - Associated symptoms include difficulty passing urine, urgent or persistent need to urinate and commonly microscopic haematuria.

- **Cancer**
  - Cancer of the bladder, urinary tract, kidneys and prostate can all cause haematuria of varying degrees.
  - Cancers from other sources that spread to the urinary tract can also cause haematuria.

- **Kidney injury**
  - Any abdominal trauma especially to the back where the kidneys are situated can cause kidney injury and resultant haematuria.

- **Medications**
  - Cyclophosphamide and penicillin have been found to cause haematuria in some people.
  - Common anticoagulants such as aspirin, heparin and warfarin can cause haematuria if the dosage is too high.

- **Strenuous exercise**
  - Rarely, strenuous exercise can lead to haematuria of unknown mechanism.
  - It is theorized that haematuria could have been due to bladder trauma, dehydration or breakdown of red blood cells during a sustained aerobic exercise.
Further Tests

- **Urine tests**
  - Urinalysis and microscopy

- **Imaging**
  - X-ray, CT scan, MRI and ultrasound to detect renal stones, prostate enlargement and cancers if indicated.

- **Cytoscopy**
  - The doctor inserts a narrow tube fitted with a tiny camera into the bladder to closely examine the urethra and the bladder for signs of disease

Treatment and Management

- There is no specific treatment for haematuria.
- Treatment and management is geared towards the underlying cause of haematuria as determined by the doctor.
- After treating the underlying cause, the haematuria will resolve spontaneously.