Name: Omizu Bernice Efemena
Matric no: 18/MHS02/150
Department: Nursing

Urinary System Pathologies

1. Kidney Stones Form from Substances in Urine

The kidneys produce urine to eliminate waste. Kidney stones can form when mineral and acid salts in the urine crystallize and stick together. If the stone is small, it can pass easily through the urinary system and out of the body. A larger stone can get stuck in the urinary tract, however. A stuck kidney stone causes pain and can block the flow of urine.

2. Urinary Incontinence Is the Loss of Bladder Control

Most bladder control issues arise when the sphincter muscles of the urethra are too weak or too active. If the sphincter muscles are too weak, a cough or sneeze can cause urination. Sphincter muscles that are too active can trigger a sudden, strong urge to urinate with little urine in the bladder. These issues are diagnosed as urinary incontinence (UI). Women experience UI twice as often as men. It becomes more common with age.

3. Fluid-filled Cysts Can Develop in the Kidneys

A simple kidney cyst is a rounded pouch or a closed pocket that is usually filled with fluid. In polycystic kidney disease (PKD), clusters of cysts form inside the kidneys and take the place of the normal tissue. The affected kidneys become enlarged and work poorly. PKD is an inherited condition that often leads to kidney failure, requiring dialysis or kidney transplantation. Acquired cystic kidney disease (ACKD) typically affects people already on dialysis from chronic kidney disease. In ACKD the kidneys do not enlarge and no other symptoms occur.

4. Chronic Kidney Disease Can Lead to Kidney Failure

n chronic kidney disease (CKD), the kidneys are damaged and unable to filter blood properly. This damage can lead to a build-up of waste substances in the body and to other problems, including kidney failure. The most common causes of CKD include diabetes, heart disease, and high blood pressure. A diseased kidney may look smaller and have a granular surface.

5. Diabetic Nephropathy

Diabetic nephropathy is a progressive kidney disease caused by damage to the capillaries in the glomeruli of the kidneys due to long-standing diabetes mellitus (see figure below). It is not fully understood how diabetes leads to damage of glomerular capillaries, but it is thought that high levels of glucose in the blood are involved. In people with diabetes, nephropathy is more likely if their blood glucose is poorly controlled. Having high blood pressure, a history of cigarette smoking, and a family history of kidney problems are additional risk factors. Diabetic nephropathy often has no symptoms at first. In fact, it may take up to a decade after kidney damage begins for symptoms to appear. When they do appear, they typically include severe tiredness, headaches, nausea, frequent urination, and itchy skin.

6. Polycystic Kidney Disease

Polycystic kidney disease (PKD) is a genetic disorder in which multiple abnormal cysts develop and grow in the kidneys. The photo below shows a pair of kidneys that are riddled with cysts from PKD. In people who inherit PKD, the cysts may start to form at any point in life from infancy through adulthood. Typically, both kidneys are affected. Symptoms of the disorder may include high blood pressure, headaches, abdominal pain, blood in the urine, and excessive urination.

7. Bladder Infection

A **bladder infection**, also called cystitis, is a very common type of urinary tract infection in which the urinary bladder becomes infected by bacteria (typically *Escherichia coli*), rarely by fungi. Symptoms of bladder infections may include pain with urination, frequent urination, and feeling the need to urinate despite having an empty bladder. In some cases, there may be blood in the urine. A much less common type of urinary tract infection is pyelonephritis, in which the kidney becomes infected. If a kidney infection occurs, it is generally because of an untreated bladder infection. Bladder infections are treated mainly with antibiotics.