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UROLOGY

ACUTE KIDNEY FAILURE VERSUS CHRONIC KIDNEY DISEASE

KIDNEY failure is the

deterioration of renal function. If the loss of function is slow and evolving for longer than three months, it is considered chronic. If failure occurs in less than three months, it is considered acute.

In the most advanced stage of kidney failure, when the "kidney stops working" (endstage renal disease), then the functionality of the kidneys must be replaced by dialysis (haemodialysis or peritoneal dialysis) or, eventually, by a kidney transplant.

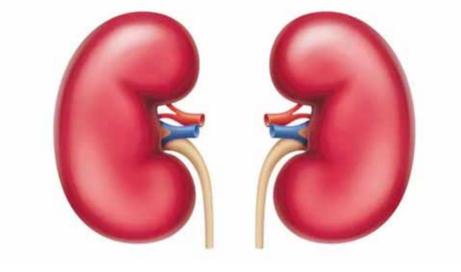
This is a frequent disease, where clinical analysis will show a wide range of clinical and analytical alterations that will require the implementation of strategies for the prevention, early diagnosis and treatment.

Acute renal failure can be reversible, if treated correctly and in a timely manner, while chronic renal failure is characterised by the slow and irreversible deterioration of kidney function. Substances that would normally be excreted by the kidneys are retained in the blood. This will result in the accumulation of toxic metabolic substances in the blood.

The pathophysiology of renal failure, acute or chronic, can have different levels. If the pathology that damages the kidneys is found "before" the kidneys, it is called renal failure of a prerenal cause. As is the case, for example, in cases associated with heart failure.

In turn, if the pathology is intrinsic to the kidneys, as in the case of acute glomerulonephritis or pyelonephritis, kidney failure is considered to have a renal cause.

Finally, if the cause of renal failure is related to a urinary obstruction, such as in prostate hypertrophy, it is called post-renal.



Symptoms of kidney failure appear in the late stages of the disease, so they are only noticed in the more advanced stages of chronic kidney disease. They can result from decreased glomerular filtration, such as oedema (swelling), decreased urinary elimination or high blood pressure. In more advanced stages,

more evident signs or symptoms may appear, such

as generalised weakness (asthenia), lack of appetite (anorexia), nausea, vomiting and changes in the central nervous system (slow thinking, sleepiness and rarely seizures).

The causes of renal failure are multiple and vary according to age. It can also be associated with various diseases such as diabetes, hypertension, chronic glomerulonephritis, polycystosis and renal hypoplasia/dysplasia.

The treatment of severe acute renal failure and more advanced chronic renal failure may involve a renal function replacement treatment: dialysis, which can be haemodialysis or peritoneal dialysis.

The most common options are haemodialysis in a private centre or peritoneal dialysis carried out at home. On the other hand, kidney transplantation can be considered and is the best treatment for kidney failure in the most advanced stages of the disease.

Renal failure can be prevented, essentially through the following measures:

- Lifestyle change to prevent frequent causes of chronic kidney failure, such as type 2 diabetes or cardiovascular disease including high blood pressure;
- Obesity, as it can also be associated with chronic kidney failure. Lifestyle should be changed in order to avoid obesity;
- Avoid exposure to nephrotoxic drugs, especially non-steroidal anti-inflammatory drugs.

Article submitted by the HPA Health Group

