



Introduction to Polycystic Kidney Disease

多囊腎(英文)

What is Polycystic Kidney Disease?

Polycystic kidney is also called bubble kidney. Most patients belong to autosomal dominant polycystic kidney disease. It mainly involves kidney, followed by liver and pancreas. 85% of cases are inherited from parents and their children having one half of the incidence to get this disease. Once the disease is diagnosed, his children and siblings should receive examination. Besides, 15% of all cases are caused by genetic mutation.

Clinical features

This disease has existed since fetus. However, most patients don't have any clinical features at young age. Presenting symptoms mainly include flank pain and abdominal pain. Besides, it also causes hematuria, polyuria, headache, hypertension, and abdominal discomforts.

Sudden onset of flank pain may be caused by cyst hemorrhage, stones, obstruction, or infection. These signs approximately appear at age of 40. With the age increases, symptoms get worse. 50% of these patients will progress to renal failure after 50 years old. At present, patients with polycystic kidney disease account for 10% of hemodialysis patients.

Other extra-renal problems include enlargement of liver, intracranial aneurysm, colonic diverticulosis, and mitral valve prolapse.

Diagnosis

1. The diagnosis is confirmed if multiple renal cysts develop plus family history. Renal ultrasound is the best tool of diagnosis and follow-up. Patients

are suggested to receive renal ultrasound once a year. The indications for CT scan include cyst hemorrhage, abscess, renal stones, and suspicion of cancer.

2. Genetic study has been little available so far.

Treatment and Prevention

1. Diet: It is not necessary to confine low sodium diet due to salt loss. These patients should limit protein intake the same as patients with chronic renal failure.

2. Avoid violent exercise in daily life. Do not use seat belts surrounding the abdomen so you can prevent kidney from damaging due to compression or crash.

3. Avoid kidney infection. Especially for female patients, they should not bath and should pee immediately after intercourse. Avoid urethral catheter if possible. It is necessary to see nephrologists once you have cyst infection. Prolonged duration of antibiotic treatment (4-6 weeks) is recommended.

4. Renal stone: drink enough water every day to maintain urine output at least 2 liters per day. Consider surgery if you still can't excrete the stone.

5. Control blood pressure below 130/85 mmHg.

6. Consider excision of renal cysts if recurrent abdominal pain is caused by polycystic kidney disease.

Prognosis

The earlier the cysts appear, the worse the prognosis is. In general, the disease slowly progresses. Although more than half patients over 50 years old need to receive dialysis, still there are patients with normal renal function until 80 years old. The risk factors of renal failure include male, larger kidney size, hypertension, and multigravida.

Some of the best ways to avoid renal failure is to keep off infection, control blood pressure, follow up checks on time, and cooperate with doctors.