

CKD program and nephrology in Tunisia: facts and perspectives.

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Tunisia is a north-african middle income country where 11 million population live. The history of nephrology starts with a man, coming back in 1962 from France, who decided to start a nephrology program, Pr H. Ben Ayed. Since 1962, the peritoneal dialysis was introduced to treat acute kidney failure, which was a fatal disease. The treatment at that time was performed using a handmade solution. One year later, he introduced the first artificial kidney known as the "Travenol tank". The first case treated was a post-partum acute renal failure. Reverse osmosis was introduced in 1971 long before several European departments, and the concentrate for dialysis was manufactured in the Central Pharmacy of Tunisia. In 1976, the 2 national insurance departments accepted the reimbursement of the treatment of the affiliates in the private sector. It was an exceptional provision, which made it possible to treat chronic kidney diseases patients in the private sector. A program of intermittent peritoneal dialysis (IPD) was set up then supplemented by the introduction of the chronic ambulatory peritoneal dialysis (CAPD) in 1983 and automated peritoneal dialysis (APD) in 1997 .

In 1991, restricted selection of patients to allow treatment of chronic dialysis was canceled and all patients with CKD5 can be treated by dialysis, with and without social insurance. Those without (poor, non worker) are treated thanks to government coverage.

Kidney transplantation (KT) was first performed in 1986. Both cadaveric and living related donor transplantation are performed in public centers, not in private. Tunisia signed the Istanbul declaration to combat the organ traffic. In 1998, was created the CNPTO (National Center for promotion of Organ Transplantation) to promote donation and coordinate transplantation program. Since 1986, more than 1300 KT were performed.

Initially, renal biopsy was carried out surgically, then by puncture with the Silverman. Slides were read by pathologist. In 1974, the development of renal pathology lab in department of nephrology allowed to nephrologists to perform reading of kidney biopsies.

Powered today by 6 university-hospital-nephrology departments, more than 150 dialysis units, 120 nephrologists and 60 fellows in nephrology, all patients suffering from CKD referred to nephrologists are treated.

Regarding to the last national registry data (2010), Tunisia account a prevalence of 806 patients per million population (pmp) and incidence of 133 pmp. 98.1% are treated by hemodialysis and 1.8% by peritoneal dialysis. The most frequent primary nephropathies were unknown origin (late referred patients) for 29.2%, diabetic nephropathies 21.0% and ischemic nephropathy 13.6%. This registry worked from 1990 to 2010. A regional registry has been developed in Sfax since 2014, waiting for the restart of the national one.

Since 1986, KT was done in 1300 cases. They are performed in the 6 university hospitals. Donation is mostly living related. The actual rate is 130KT/year.

If the development of nephrology was gathered to the diagnosis and treatment of kidney diseases, many weaknesses are noted regarding to CKD prevention and research in nephrology field. Celebrating yearly world kidney day is still insufficient; besides, actions have to be developed in these fields.