Urology in the Iranian Biomedical Journals

Urol J (Tehran). 2006;4:253-7.
www.uj.unrc.ir

Etiology of End-Stage Renal Disease in Dialysis Patient in Gilan Province

Khosravi M, Ghaheryfar M, Monfared A

Department of Nephrology, Razi Hospital, Gilan University of Medical Sciences, Rasht, Iran

Background: The etiology of End Stage Renal Disease (ESRD) in every community differs according to genetic, nutrition, and public health status. ESRD, the terminal stage of chronic renal failure, needs replacement therapy otherwise could lead to death. The aim of the study is to determine the relative frequency of ESRD etiology in hemodialysis patients of Gilan province.

Methods: This descriptive study was performed on 407 patients who were being hemodialysis in all hemodialysis centers of the Gilan province from September 2002 to September 2003. The original data was collected from the medical records of patients.

Results: The most prevalent causes were: hypertension 35.4%; unknown etiology 16.2%; diabetes melitus 13.8%, glomerulopathies 9.6%, urologic causes 9.1%, cystic kidney diseases 7.6%; other causes 5.9%; congenital 2.5%.

Conclusion: In our study hypertension was the first etiology of ESRD, followed by unknown causes, however nephrology textbooks indicate diabetes melitus as the primary and hypertension as the secondary etiology of ESRD.

Tehran Univ Med J. 2006;64:54-60.

A Study of the Risk Factors for Posttransplant Erythrocytosis at Sina and Baghiat-Allah Hospital

Razaghi E, Kaboli AR, Lesan-Pezeshki M, Pash-Meysami A, Khatami MR

Department of Nephrology, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran

Background: Post-transplant erythrocytosis (PTE) is characterized by persistent hematocrit level above 51% that develops in 10-20% of kidney recipients, mostly 2 years after kidney transplantation. PTE is self limited in 25% of the patients but can be persistent in other patients with an increased susceptibility for thrombosis. The purpose of this study was to identify the risk factors for development of PTE in our center.

Methods: We selected 45 patients who were transplanted at least 3 months before selection (minimum time required for detection of PTE) and were referred to the kidney transplantation clinic during 5 years (1998-2003) as the case group. At the same time, we considered 2 patients without erythrocytosis as control for each patient in the case group among kidney transplant recipients who were referred to the same clinic during 5 years (1998-2003). In total we had selected 135 patients, 45 patients with erythrocytosis as the case group and 90 patients without erythrocytosis as the control group. Patients who were affected by high hematocrit before transplantation (HC > 51%), overt pulmonary disorder, and polycytemia Vera were excluded from this study. We collected basic information by using old charts and complementary information was added through phone conversations and

physical examination in the clinic. All the information was entered in the digital questionnaire and was analyzed by the SPSS statistical package.

Results: There was no significant difference between the case and control group for age, history of hypertension, diabetes, pretransplant hematocrit, pretransplant transfusions, and function of graft and source of kidney. A significantly higher proportion of PTE patients were male, also the case group had a significantly higher frequency for personal history of polycystic kidney disease, glomerulonephritis and higher frequency of azathioprine, prednisolone and cyclosporine regimen.

Conclusion: PTE is an important complication of kidney transplantation that can be fatal. There are multiple risk factors that should be addressed to prevent this complication.

Tehran Univ Med J. 2006;64:61-8.

The Etiologies and Outcome of ESRD in Children Medical Center from 1988 to 2003

Madani A, Shakiba M, Ataei N, Esfahani ST, Mohseni P

Department of Pediatric Nephrology, Children's Medical Center, Tehran University of Medical Sciences, Tehran, Iran

Background: Chronic renal failure defines as progressive and irreversible dysfunction of kidneys that could eventually terminated to end stage renal disease (GFR < 10% NL). Because of therapeutic problem and high mortality and morbidity and its implication quality of life, ESRD is one of the important dilemma of pediatric medicine.

Methods and Materials: In our study 216 patients evaluated.

Results: Male to female ratio was 1.1. The peak of the presenting age of ESRD was 10 years old (8-12 y). Congenital urological malformation (30%), glomerulopathies (20%), hereditary nephropathies (14.3%), multisystem diseases (7%) and nephrolithiasis (6.2%) are the most common etiologies of ESRD. VUR in 21% and congenital obstructive disease in 8.5% are the etiology of ESRD. In patients with age 5 years old and lesser common causes of ESRD are congenital urologic malformation and glomerulopathies. In other age groups, urologic malformation is the most a common cause of ESRD. In etiologic assessment of 2 separate 7 years' intervals, 1988-93 and 1996-2003, there was not any significant changes in frequency of etiologies but frequency of congenital obstructive uropathy decreased from 10% to 5.7%. Total amount of VUR (VUR ± neuropathic bladder) did not change, but frequency of primary reflux nephropathy decreased from 14.2% to 8%. In this study, in 145 patients, hemodialysis continued and 28 cases had unsuccessful renal transplant (13.8%). A total of 7.4% of patients had successful renal replacement therapy (RRT) and mortality rate was 7.4%.

Conclusion: Based on that the most common cause of ESRD in all ages in congenital urologic malformations, early diagnosis and appropriate management of these cases are effective in decreasing incidence of ESRD and with respect to few cases of renal transplant and unsuccessful results in 65% of RRT, the approach to this problem should be revised.

J Tehran Fac Med. 2005;1:67-1.

Survey of Cutaneous Complications after Renal Transplantation in Emam Reza and Qaem Hospitals, Mashhad

Yazdan Panah MJ, Ebrahimi Rad M, Mojahedi MJ

Departments of Dermatology and Internal Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

Background and objective: Renal transplantation is an appropriate treatment for end stage renal disease and helps prolongation of patients' survival with better quality, but immunosuppressive drugs that are used for inhibition of rejection after transplantation may cause some adverse effects in other organs such as the skin. Apparently, early recognition of those side effects and their appropriate management can reduce morbidity and mortality. This study was designed to study cutaneous complication in renal transplantation recipients.

Materials and Methods: In this descriptive study, cutaneous side effects in one hundred kidney transplant patients who admitted to transplantation clinics of Qaem and Emam Reza hospital of Mashhad during a six-month period (April to September 2003) were studied.

Results: Sixty-five patients were males and 35 cases were female. The mean age was 36 years (SD=14). Totally, cutaneous manifestations were observed in 88% of patients. In an descending order they included hypertrichosis, cushingoid appearance, gingival hyperplasia, steroid acne, common warts, herpes simplex infection, superficial fungal infection, candidiasis, actinic keratosis, porokeratosis, lymphoma, stria, telangiectasia and sebaceous hyperplasia.

Conclusion: Early recognition of these complications and appropriate treatment of them can reduce probable mortality and morbidity.

Iran J Derm. 2005;32:281-6.

Skin lesions after renal transplantation in Shiraz University of Medical Sciences

Salmanpoor R, Mirnezami, M

Department of Dermatology, Shiraz University of Medical Sciences, Shiraz, Iran

Background and objective: Renal transplantation may be considered as the only effective long term therapy for chronic renal failure. Better surgical techniques and recent advances in immunosuppressive therapy allows patients to survive for many years. However, cutaneous lesions (cosmetic, infectious, precancerous and neoplastic) can be a significant problem for this group of patients. This study was performed to determine the frequency of skin lesions in renal transplant recipients (RTR) in Shiraz University of Medical Sciences in 2003, 2004.

Materials and Methods: This descriptive study was done on RTR operated in Transplantation Center, Namazi Hospital in Shiraz. They had a complete dermatologic history taken and received a thorough dermatologic examination in the department of dermatology at Faghihi hospital.

Results: From July 2003 to October 2004 two hundred (130 males and 70 females) patients with a mean age of 39 years were studied. Hypertrichosis was the most commonly observed dermatologic condition which was observed in 191 cases. The most common skin infection was wart presented in 101 cases. Eight patients had non-melanoma skin cancer.

Conclusion: Awareness of RTRs and their medical personnel about cutaneous complications of renal transplantation as well as early referral of these patients to dermatologists to treat their lesions can improve their quality of life and survival.

Iran J Derm. 2005;32:276-80.

Extracorporeal Shock Wave Lithotripsy for Treatment of Renal Stones in Children

Younesi Rostami M, Rezaei Mehr B

Background and Purpose: Children with urinary stone disease for longer period of time are at risk of stone recurrence. In two-thirds of the cases medical intervention is mandatory and minimally invasive therapy is advised. The purpose of this research was to evaluate the efficacy and complications of ESWL in these children.

Materials and Methods: In this study 30 patients with renal stones were recruited. Patients with ureteral and bladder stones were excluded. Imaging study for diagnosis of renal stones were sonography (23 patients) kidney-ureter-bladder (3 patients) and intravenous pyelography (IVP) (4 patients). All patients were evaluated for PT, PTT and medical history of coagulophaty. Twenty five patients had renal stones lesser than 20 mm and patients had stones greater than 20 mm. Patients treated with 1200-2200 shocks (Mean 1500) and 16-18 KV. All patients were evaluated with sonography 2 weeks, 4 weeks and 12 weeks after treatment. In patients with renal stones greater than 2 cm a double J stent inserted before ESWL.

Results: Stones were from 9 to 26 mm in size (Mean 13 mm). 25 patients became stone free (83.3%) after on course of ESWL. In one patient (3.3%) three courses and in 4 patients (13.3%) 2 courses of ESWL necessitated for removing of stones. 2 cases (6.6%) complicated with steinstrasse one of whom was managed with conservative therapy and in the other TUL was done.

Conclusion: Extracorporeal shock wave lithotripsy is effective in the treatment of renal stones in children. In patients with stones greater than 2 cm additional course of ESWL may be necessary. We recommend that in patients with stones greater than 2 cm insertion of a double J stent can reduce occurrence of steinstrasse. Complication of ESWL in children is very low and no significant morbidity occurs with ESWL

J Mazandaran Univ Med Sci. 2005;46:77-81.

A study on the Rate, Type and Clinical Features of Urolithiasis in Children Younger Than 15 Years with Symptomatic Urinary Tract Infection

Ahmad Zadeh A, Jamshidi Moghaddam Z

Objective: Marked variation exists in the incidence of urolithiasis in children worldwide. Urolihiasis may be declared by the passage of stone, but is more commonly revealed during the investigation of a child for urinary tract infection (UTI). The aim of this study was to determine the rate of renal calculi in patients with symptomatic UTI.

Methods: Over an eight months' period, 196 children (Aged two months to 15 years) admitted with symptomatic UTI were evaluated for renal calculi by plain abdominal X-ray and ultrasonography.

Results: The results showed that 15 (7.6%) had urolithiasis, which was more common in boys. Fever and dysuria were the commonest clinical features in 80% of cases. The implicated organisms isolated in both UTI and urolithiasis were as follows: E Coli (67%), klebseilla (26%) and proteus (7%). Obstructive hydronephrosis was detected in 40% of cases leading to surgical intervention. The sites of stones were as follow: Upper urinary (67%), bladder (20%), and urethra (13%). Stone analysis was done in 12 cases revealing calcium oxalate in 8 (53%), cysine in 2 (13%), struvite and uric acid 1 (6.7%) in each. In 80% of patients, the stones were multiple and 66.6% were bilateral. In 50% of cases, the underlying disorders were identified. Two cases had distal renal tubular acidosis, two brothers had cystinuria and one child had a staghorn struvite. On admission, 40% of our cases had an obstruction and 27% of them had ARF who on discharge had better renal function following treatment with anti-microbial drugs.

Conclusion: These findings suggest that early diagnosis and management of renal stones in children with UTI is necessary to prevent the development of renal failure

Sci Med J Ahwaz Univ Med Sci. 2005;45:155-62.

Sensitivity and Specificity of Urinary Bladder Cancer Antigen for Diagnosis of Bladder Tumor; a Comparative Study with Urinary Cytology

Radkhah K, Nowroozi MR, Jabalameli P

Department of Urology, Imam Khomeini General Hospital, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran

Cystoscopy and urinary cytology are currently the basis for diagnosis and follow-up of bladder tumors. Research to find a sensitive and specific tumor marker for diagnosis of bladder tumor is actively underway, however, due to low sensitivity and high cost of cytology. This cross-sectional study was performed in 65 patients to evaluate whether urinary bladder cancer (UBC) antigen level can predict the presence of active bladder tumor. In patients with inactive tumor, UBC antigen level was determined in addition to standard cystoscopy and cytology for follow-up. Patients with active tumor were subjected to standard treatment and UBC antigen level determination. UBC antigen levels were measured by ELISA, using monoclonal antibodies specific for UBC antigen. As a control group, UBC antigen level was also determined in 65 persons who had been referred for urinalysis for other reasons. UBC antigen level more than 1 μg/L which was regarded as positive was found in 49.4% of the patients. In control group, 96.9% had UBC antigen < 1μg/L. Mean UBC antigen level in patients was 3.77 μg/L while it was 0.508 μg/L in controls ($P < 0.001$). Sensitivity of UBC antigen was 53.3% and its specificity was 40%. Sensitivity and specificity of urinary cytology was 17.3% and 88.2%, respectively. This difference was statistically significant ($P < 0.001$). UBC antigen is more sensitive than urinary cytology, although cytology still retains its priority in specificity. It is not yet recommended to replace UBC antigen for cytology due to its low specificity and not favorable sensitivity.

Acta Med Iran. 2005;43:169-72.