

Introduction

In the Young adult life (18-30 y) 50 % of chronic kidney disease (CKD) comes from Congenital Anomalies of the Kidney and Urinary Tract (CAKUT) and 10-15% from glomerulopathies (FSGS, IgA) , which pediatric nephrologists have been handling up to the adolescent period. Creation by the ISN of the SISTER RENAL CENTER PROGRAM opened the opportunity to initiate a partnership between the **Pediatric Nephrology Service in FVL- Cali Colombia** and the **Pediatric Nephrology Service in CHB- Boston** .

Objectives

The objective is to strengthen the pediatric nephrology service at FVL, focusing in early detection of renal disease, including a more effective coordination of the local and national Renal Services, in order to avoid and treat CKD.

Methods

We applied six strategies to the program:

- 1 Perinatal detection of patients at risk to develop renal disease : Intrauterine Growth Restriction(IUGR) who are at an elevated risk of hypertension in the first decades of life.
- 2 Prenatal detection of CAKUT.
- 3 Strategies and clinical research on early AKI (Acute Kidney Injury) detection at NICU and PICU.
- 4 Clinical design of a preventive program to detect, at the first and second level of health attention, the most common renal alterations. We planned continuing medical education (CME) activities with the participation of three international speakers per course, short training visits to the supporting center, visiting scholars to CHB, fellowship training in CHB, local , regional and national meetings .
- 5 Education to the patients and families. This is a permanent didactic activity that reaches the community beyond FVL, supported by nurses, social workers and psychologists.
- 6 Establishment of a program to support the Pediatric Hospital "Susana Lopez de Valencia" at city of Pasto (state of Cauca, Colombia) to develop the Pediatric Nephrology Service there and to create a kidney diseases registry.

Results

- A. **NATIONAL COURSES CME made by SRC program FVL Cali – Childrens Hospital Boston**
 - B.
 - 1° meeting : **Prevention of Renal diseases SRC Program April 2008**Dr. John T. HerrinDr. Ricardo Correa-RotterDr. Randall Lou
 - 2° Meeting **SRC Program October 2009-AKI related** Michael Somers , Michael Ferguson and George Schwartz
 - 3th meeting **SRC Program 2010 Joined to ACONPE** Carlos Estrada , Fernando Santos and Nelson Orta
 - 4th meeting **SRC Program 2011 Joined to Colombian Society of Pediatrics** Michael Somers , Ghaleb Dawk , John T Herrin, Francisco Flores and George Mazariegos.
 - 5th meeting **SRC Program 2012 .CKD in children : TRANSITION through a succesful renal Tx** William Harmon , Paul Harden, Francisco Cano
- ISN Ambassadors Program 2012**
Helmunt Rennke

LOCAL COURSES IN PREVENTION

- 1 Multidisciplinary management of children with renal disease. May 2009. Directed to nurses, social workers psychologists and dietitians.
- 2 Monthly education meetings with patients on RRT.
- 3 Monthly interdisciplinary evaluation of patients with myelodisplasia and their families.
- 4 Four training courses on RRT to PICU nurses 2009-2011
- 5 Education program in a second level health attention HICN (Childrens hospital Cali)

C. VISITS TO CHILDREN'S HOSPITAL BOSTON

Short training visits (1 month): One bacteriologist (B&W Hospital) 7nurses (PICU, Renal Unit CHB).

Visiting Scholars (2 – 3 months): Two pediatric intensivists (PICU), two pediatricians (Urology, perinatology service) , two urologists ,one MD PhD (Pharmacology B&W H) , one pediatric infectiologist and one epidemiologist.

Visiting from CHBoston: Melisa Oliva ,psycholog visit 2 weeks to impulse TRANSITION PROGRAM Sept2011

Visit from ISN Dr Paul Harden .Activities related with TRANSITION PROGRAM .

Results (cont.)

D. RESEARCH ACTIVITIES

2009: Relationship of gestational age and birthweight with novel urinary biomarkers of renal function measured at 1,3 and 5 years of age in children on follow up at program Kangaroo mother House Alfa, Cali Colombia". Approved. "AKI and Urinary biomarkers in children after CV surgery". Submitted. "Surveillance and Economic Impact of Renal Adverse Events in Pediatric inpatient Services".

Abstracts presented at the WCN 2011 and Satellite Symposia: "Prevalence and characteristics of AKI in the PICU-FVL Cali Colombia 1996-2006". **Abstracts presented at the IPTA Congress on June 2011:** 1. K Tx in children with NS-FSGS using plasmapheresis. 2. Ped K Tx in Cali. 3. Three Immunosuppressive regimes at a Ped K Tx Center. 4. Ped K Tx : experience in the PICU. **Abstracts to WCN 2013 :** 1. Relationship of gestational age and birth-weight with renal function measured at 5 years of age in children on follow up at program Kangaroo Mother House Alfa, Cali Colombia 2. A RETROSPECTIVE STUDY TO ASSESS THE RISK OF ACUTE KIDNEY INSUFFICIENCY (AKI) IN PEDIATRIC PATIENTS HOSPITALIZED AT A FOURTH HEALTH LEVEL - CALI COLOMBIA. 3. CLINICAL EVALUATION OF A RENAL REPLACEMENT THERAPY PROGRAM IN CHILDREN UNDER 18 YEARS OLD - CALI COLOMBIA 2008-2012 4. One year outcome of AKI using pRIFLE criteria in the Pediatric Intensive Unit-PICU at FUNDACION VALLE DEL LILI-CALI COLOMBIA 2009-2010",



Conclusions

The **Sister Renal Center Program** collaborative effort has nurtured the Pediatric Nephrology Service at Fundación Valle del Lili. It is required more economic support to advance clinical and basic research projects as well as to develop a complete registry of CAKUT and of AKI. The program has allowed a better follow up of AKI in the PICU and has provided support for the day to day decisions on chronic patients management and transplantation.

Contact

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