

Annual Report
Division of Nephrology
Department of Medicine, Jewish General Hospital
April 1, 2011 - December 31, 2011

I HIGHLIGHTS

There were no particular substantive developments in the Division of Nephrology this year. The division continues to provide excellence in patient care and teaching. In addition, although the division is small in terms of the number of members, there is significant activity in fundamental, translational, and clinical research domains.

Our satellite dialysis unit is in its sixth full year of service. The unit is located on the ground floor of Pavilion H. This past year the satellite unit was expanded with the addition of six hemodialysis stations. This expansion will allow us to accommodate up to 18 more hemodialysis patients. We have applied to the Agence de Montreal for operating funds for the additional stations.

We also continue to operate out of our original hemodialysis unit in Pavilion G. This unit is running at almost full capacity using 16 dialysis stations, three sessions per day, 6 days per week. This unit serves all our dialysis patients who are admitted to hospital as well as our more fragile out-patients.

The Kidney Treatment Centre (pre-dialysis clinic) which is located adjacent to the satellite dialysis unit in Pavilion H is in its fourth year of operation. The clinic provides the necessary educational, dietary, and psychological support to patients with progressive kidney failure and to their families. These programs have been shown to slow the decline of renal function in participants. In addition, the team in the pre-dialysis clinic help patients make the often difficult transition to dialysis therapy. This clinic now handles over 150 patients with Stage III and Stage IV CKD.

Our peritoneal dialysis program has continues to be among the largest in Montreal. We currently have 50 patients in this program. Of our total dialysis population 18% are on peritoneal dialysis as their mode of therapy. This figure is substantially higher than the provincial average of 12%.

We continue to aggressively promote renal transplantation to our patients as the preferred option for the treatment of end-stage renal disease. We emphasize the value of pre-emptive transplantation in order that the patient may avoid dialysis and we encourage donations from both living-related and living-unrelated donors.

The Division has continued to expand its research activities with three ongoing local investigator-conceived and implemented studies. This is in addition to the division participating in several multi-center clinical trials as well as the fundamental research taking place in Dr. Lipman's laboratory.

The Division of Nephrology at the JGH continues to serve as a training site for the McGill Renal Fellowship program. Fellows rotate through our peritoneal dialysis program and the consulting service. The feedback from the fellows on the JGH experience has been uniformly positive.

II EVALUATION OF THE PAST ACADEMIC YEAR

1. Teaching activities

Core Medicine lecture series.

Dr. D. Bercovitch
Dr. M. Davidman
Dr. M. Lipman
Dr. G. Frisch
Dr. S. Nessim

University teaching:

Dr. G. Frisch & Dr. S. Nessim:

Medicine I Physiology: Small group tutorials - Renal section - 18 hours/year each.

Back to Basics Acid-Base - 6 hours/year each.

Dr. M. Lipman:

McGill Renal fellow seminar series.

Immunobiology of renal transplantation rejection.

2 hours/year

Dr. M. Davidman:

McGill Anesthesia resident seminar series - Fluids and electrolytes, acid-base and renal disease - 3 hours/year

Undergraduate medical student lectures:

Dr. D. Bercovitch, Hypertension, 6 hours

Dr. M. Davidman, Renal failure, 6 hours

Dr. M. Lipman, Electrolytes, 6 hours.

Dr. G. Frisch, Electrolytes, 6 hours.

Dr. S. Nessim, Hypertension, 6 hours

2. Research Activities

Dr. Lipman

Peer reviewed:

Ace Inhibition for the Preservation of Renal Function and Patient in transplantation
CIHR

Pharma sponsored:

Quantitative cytokine transcript monitoring in kidney allograft biopsies: Effect of treatment of subclinical rejection on long-term graft function and histology, Fujisawa Canada.

Belatacept evaluation of nephroprotection and efficacy as first-line immunosuppression trial (BENEFIT), Bristol-Myers Squibb Pharma

An opened labeled extension study of the safety of long-term administration of Sirolimus (Rapamycin) in solid organ transplant recipients, Wyeth-Ayerst Pharma

A facilitated access program to provide Everolimus (RAD) for maintenance patients completing therapy in RAD trials in solid organ transplantation, Novartis Pharma

A Comparison of Effects of Standard Dose vs. Low Dose Advagraf with IL-2 Receptor Antibody Induction, MMF and Steroids With or Without ACEi / ARB - based Antihypertensive Therapy on Renal Allograft Histology, Function, and Immune Response, Fujisawa Canada

An observer-blinded, randomized study comparing the safety and immunogenicity of HEPLISAV to licensed vaccine (Energix-B) among adults with chronic kidney disease, Dynavax Technologies

Dr. Lipman and Dr. Nessim

Investigator initiated:

Effect of vitamin D3 supplementation on arterial and bone remodelling in chronic kidney disease patients.

The effect of hemodialysis (and ultrafiltration) on large arteries on hemodialysis (HD) patients.

The Effect of anemia correction by erythropoietin on the macro- and micro-vasculature in patients with moderate chronic kidney disease.

Research Trainees

Dr. Marie Briet, Nephrologist (Sabbatical), Hôpital André-Grégoire, Montreuil, France
Dr. Nada Kanj, Medical Biochemistry Resident, McGill University

Publications

Effects of recombinant human erythropoietin on resistance artery endothelial function in stage 4 chronic kidney disease: Role of oxidative stress and endothelin-1.

Briet M, Barhoumi T, Davidman M, Bercovitch B, Frisch G, Nessim SJ, Lipman ML, Schiffrin EL.(submitted)

Gentamicin-resistant infections in peritoneal dialysis patients using topical gentamicin exit-site prophylaxis: a report of two cases, Nessim SJ, Jassal SV. Perit Dial Int. 2012 May; 32(3):339-41.

Changes in patient and technique survival over time among incident peritoneal dialysis patients in Canada, Perl J, Wald R, Bargman JM, Na Y, Jassal SV, Jain AK, Moist L, Nessim SJ, Clin J Am Soc Nephrol. 2012 May 3.

Microbiology of peritonitis in peritoneal dialysis patients with multiple episodes., Nessim SJ, Nisenbaum R, Bargman JM, Jassal SV, Perit Dial Int. 2012 May;32(3):316-21.

A randomized controlled trial comparing mupirocin and polysporin triple ointments in peritoneal dialysis patients: the MP3 Study, McQuillan RF, Chiu E, Nessim S, Lok CE, Roscoe JM, Tam P, Jassal SV, Clin J Am Soc Nephrol, 2012 Feb;7(2):297-303.

Prevention of peritoneal dialysis-related infections, Nessim SJ, Semin Nephrol. 2011 Mar;31(2):199-212.

Abdominal wall leak after radiologic peritoneal dialysis catheter manipulation, Nessim SJ, Lipman ML, Peritoneal Dialysis International 2011; Volume 31: 207-209

Briet M, Barhoumi T, Davidman M, Bercovitch B, Frisch G, Nessim SJ, Lipman ML, Schiffrin EL, Recombinant human erythropoietin alters subcutaneous resistance artery endothelial function through a mechanism involving oxidative stress and endothelin-1 in patients with stage 4 chronic kidney disease, Journal of Hypertension 2011; Volume 29; Supplement A: e10

Sierra C, Briet M, Edwards C, Boutouyrie P, Davidman M, Bercovitch B, Frisch G, Nessim SJ, Lipman ML, Schiffrin EL, Effect of hemodialysis on large arteries in patients with intradialytic hypertension, Journal of Hypertension 2011; Volume 29; Supplement A: e74

3. Clinical Activities:

Monday - Saturday: 8:00 - 8:30 a.m. Hemodialysis rounds
Monday - Friday: 8:30 - 12:00 a.m. Inpatient rounds with residents on elective
1:30 - 4:00 p.m. Renal Clinic
Tuesday: 8:45 a.m - 3:00 p.m. Dr. M. Lipman - McGill Transplantation
Clinic
12:30 - 4:00 p.m. C.A.P.D. Clinic
Thursday: 11:00 - 11:30 a.m. C.A.P.D. patient meeting
9:00 - 11:30 Renal Clinic
13:00-14:00 Nephrology Rounds
Mon-Thu: 8:30-12:00 Kidney Treatment Center Clinic

Mon-Thu: 8:30-12:00, 13:00-16:00 General Nephrology Clinic

Every 4th Thursday: 1:30 - 4:30 p.m. Hemodialysis patient meeting
CTU Ward attendings: Dr. Lipman (8 weeks), Dr. Frisch (8 weeks), Dr. Nessim (8weeks)
ICMB: Dr. G. Frisch, Dr. S. Nessim

4. Academic Staff

Dr. David Bercovitch	Associate Professor of Medicine
Dr. Michael Davidman	Associate Professor of Medicine
Dr. Gershon Frisch	Assistant Professor of Medicine
Dr. Mark Lipman	Associate Professor of Medicine
Dr. Sharon Nessim	Assistant Professor of Medicine

III OBJECTIVES AND PRIORITIES

The Division of Nephrology is actively involved in long-term planning for the future with the goal to securing adequate resources for our end-stage renal disease patients. In this regard, we are currently planning for the relocation of all dialysis and nephrology out-patients services to the physical space currently housing the Emergency Department. Once the ED moves to the new facility in Pavilion K, we will be able to consolidate our services in the vacated ED space. This will greatly improve our ability to deliver efficient, integrated services to our patients.

We will continue to pursue our investigator-initiated clinical studies with energy and enthusiasm. Several studies are currently underway as noted above. In addition, Dr. Lipman continues to contribute the fundamental research activities of the division. Dr. Nessim continues to consolidate her position on the national stage as a leading expert in the area of peritoneal dialysis.

Respectfully submitted,

Mark L. Lipman, MD
Chief, Division of Nephrology