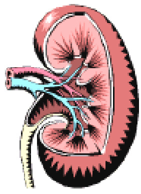

Kidney news

Volume 5 Issue 2 June 2003

Consulting times and rooms

EAST AUCKLAND: Eastcare Specialist Centre, Botany Downs. Weekly clinic, every Monday evening, from 17:30.

SOUTH AUCKLAND: Takanini Accident and Medical Centre, Takanini. Monthly clinic, third Thursday of each month, from 17:30.

NORTH SHORE: Waitemata Specialist Centre. Monthly clinic, first Tuesday of each month, from 17:30.

Website

Calculations on my website GFR calculator, may differ a little from the Pharmac/Department of Health "slide rule" calculator. This difference is not clinically important. The difference is related to the correction for body size. The actual numeric difference is minor.

http://www.kidney.net.nz/GFRcalculator.htm

If the calculated, corrected, GFR is below 90ml/min/1.73m^2 body surface area (BSA), then the loss needs explanation. And referral may be appropriate. **Referral is almost always appropriate when the GFR is below 60min/min/1.73m^2 BSA**.

Please feel free to call me if you have any doubts, or queries: 021 664664.

Renal transplantation

Renal medicine and kidneys have been in the national media recently.

As a result more of the community are aware of the live kidney donation. Family members are more willing to come forward and offer a kidney to a loved one, or friend. Some "altruistic" donors are also coming forward to offer a kidney. Although all live-donors are altruistic to some degree, the term altruistic usually refers to a live donor giving to the national kidney pool, and the recipient is not known. The best-matched recipient in New Zealand is first offered the kidney. The donated kidney is not directed to a named recipient, as are other live donations (to a child, sibling, or spouse, for example).

What tests are needed for a donor?

ABO blood group compatibility between donor and recipient is required. If they are compatible, referral of the potential donor to a renal physician is then appropriate.

Other tests that are needed are aimed at ensuring the general health of the potential donor is able to withstand the loss of one kidney, and ensure the donor has no ill-health / infection that may be carried in the transplant (eg. hepatitis or HIV).

As 1:500 people are born with congenital renal agenesis - one of the reasons for performing a renal ultrasound is to ensure there are two kidneys!

Generally a patient with a low corrected creatinine clearance (less than 80ml/min/1.73^2 BSA), or has hypertension requiring more than one anti-hypertensive medication, is not a suitable donor. History of cancer is almost always a contraindication.

An issue that continues to be an ethical challenge is when a "borderline" suitable donor wants to give to a partner/spouse to improve their joint quality of life. Each case is assessed on their individual merits.

Kidney news is produced in the interest of education of all medical practitioners in the management of kidney disease or general conditions that may affect the kidneys.

65 renal transplants were performed last year in Auckland - 23 were from live-donors. Live donors are a significant part of the renal donor pool.

What's the risk to a live kidney donor?

There is the peri-operative surgical and anaesthetic risk, as with any operation. The anaesthetic risk is <1:10,000 of a major event in a healthy donor.

Obesity, particularly a BMI over $35kg/m^2/ m^2$, is associated with a greater risk of post-operative pneumonia. This is similar to any abdominal operation, where the pain limits deep inspiration, leading to pulmonary secretion retention, and associated pneumonia risk. The obesity increases this pneumonia risk to a level that precludes a donor over the BMI = 35 limit.

Hypertension is the other significant risk factor. With the removal of a kidney, the number of nephrons (and hence GFR) is halved. An increased workload on the donor's remaining nephrons results. The remaining kidney copes very well with this, and "grows" in size to a small degree to cope with this increased filtration per nephron demand. There is, however, a small increase in hypertension risk over the next few decades. This is difficult to assess as the donor has also aged over the ensuing 20 to 30 years, and may have developed hypertension in any case. Despite this, there does seem to be an increased risk of hypertension, and so the potential donor is warned of this risk. Most donors, appropriately, ignore this small risk when weighed against the huge physical benefits to the recipient (off dialysis), and the donor themselves emotionally.

Next newsletter

The anaemia of renal failure is seen in almost all patients with chronic renal failure (CRF). The degree of anaemia increases with the severity of CRF. The next ***kidney news*** newsletter will address this anaemia of CRF patient, and in particular, the recently relaxed rules of access for erythropoietin for patients with CRF.

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Qualifications

BSc (Biochemistry, Otago) 1981
MBChB (Otago) 1984
FRACP 1992
MRCP(UK) 1993

Interests

Investigation of renovascular disease and hypertension
Management of urinary tract infections
Investigation of urinary calculi
Investigation of proteinuria and haematuria
Early detection, investigation and management of impaired renal function.
Renal nutrition.

Consulting Rooms

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