BRIEFLY NOTED

Life expectancies vary by area of residence in the US with differences for the general population of about 4 years for the lowest quintile of counties (Q1) vs the highest (Q5). Compared with dialysis patients living in Q5 counties, dialysis patients living in Q1 counties had higher adjusted rates of mortality (HR 1.20), reduced likelihood of transplant listing (HR 0.68), less predialysis nephrology care (HR 0.83), less frequent AV fistula use at the first outpatient dialysis (HR 0.90) and fewer preemptive renal transplants (HR 0.54). An analysis of Medicare data found that patients initiating HD using a central venous catheter who later had an AV fistula placed had very poor fistula function. Only 54% used their fistula within 6 months of placement and 83% of those using their fistula required access intervention within one year.

A randomized, 6-month trial compared a thrice weekly catheter lock with taurodilicine/citrate/heparin to a regimen replacing one of these locks with taurolidine/citrate/urokinase in 179 HD patients with tunneled central vein catheters. The urokinase group had significantly fewer catheter exchanges (1 vs 7 exchanges).

Use of a taurodilicine based catheter lock regimen was superior to a citrate based regimen in a randomized study of 106 HD patients with new tunneled central vein catheters. The taurodilicine group had fewer infections (6 vs 18) and less catheter dysfunction (19 vs 44 catheter-days). The taurodilicine protocol was 1.35% taurodilicine with 4% citrate and 500 IU/ML heparin following two weekly dialysis treatments; the third treatment substituted urokinase (25 000 IU) for heparin.

A randomized, 6-month trial of sodium thiosulfate (12.5 gm IV twice weekly) in 50 patients with abnormal arterial stiffness found that the drug significantly reduced the measures of this stiffness and stabilized vascular calcification compared to the control group.

Reanalysis of prospective data in 624 HD patients from a nutrition study found that use of a low dialysate potassium concentration (1 mEq/L) in patients with high (≥5 mEq/L) predialysis serum potassium was associated with a 2.9 fold higher mortality than that which was seen with a 2 mEq/L bath (HR 0.74); mortality rates were not increased in patients with a lower serum potassium treated with a 1 mEq/L dialysate potassium. A greater dialysate-serum gradient is postulated as the cause.

Analysis of USRDS data for 2004-2014 found that women were less likely than men to initiate HD with an AV access (adjusted OR: 0.85); Blacks were more likely (OR 1.08) to start with an AV access but much less likely for that access to be an AV fistula than a graft (OR 0.52). Adjusted 1 year mortality rates were much lower for Asians (OR 0.55), Blacks (OR 0.67), Hispanics (OR 0.62), and Native Americans (OR 0.62) than Whites (1.00).

USRDS data on 45 087 new AV fistulas placed in prevalent HD patients found that only 55% were used within 4 months after placement. A variety of largely predictable risk factors were associated with lower maturation rates including female sex, cardiovascular and peripheral vascular disease, catheter use, and diabetes. Two of the 18 US ESRDS Networks had significantly lower maturation rates: Network 3 (IN, OH, KY) and Network 9 (NJ, PR, VI).

DEXA bone scans in 34 HD patients before and within 4 years after total parathyroidectomy showed improved lumbar spine (L4) bone density in all but two patients.

A randomized, 3-month, controlled trial in 20 HD patients found that intradialytic use of tablet based brain games or exercise training with foot peddlers was associated with less cognitive decline in psychomotor speed and executive function than was seen in HD patients not so treated.

An analysis of data on cardiac troponin T (TnT) levels in 1,034 HD patients in the German Diabetes and Dialysis Study (4D Study) found that the levels of centrifugal sensitivity (hs) TnT predicted mortality even for levels that were considered normal on conventional TnT testing. After age and sex adjustments, patients in the top two quartiles of hs-TnT levels under 50 ng/L had a 78%-80% higher mortality than those in the lowest quartile.

Obese PD patients were more likely to fail PD and to lose residual renal function than were lean patients in an analysis of 15 573 PD patients in a large dialysis organization. Survival was better in those patients with a BMI of 30-35 kg/m² than in other BMI ranges.

A study of PD associated peritonitis (N = 9100) in 51 centers across Australia and New Zealand found a strong center effect; those using PD for >29% of dialysis patients had higher odds of cure (adjusted OR, 1.21), lower odds of catheter removal (OR 0.78), less frequent transfer to HD (OR 0.78) and fewer relapses (OR 0.68) than centers with 18%-29% of dialysis patients on PD. Also noted was a higher rate of cure when empirical antibiotic choice was broad spectrum (gram negative and positive) compared to narrow spectrum (OR 1.22).
A hunch that intradialytic hypoxemia might induce a sympathetic response and account for intradialytic hypertension was supported by a retrospective study of 982 HD patients (29 872 treatments) of whom 53 had such hypertension. Systolic BP increased by 0.46 mm Hg for every percentage point lower oxygen saturation.\textsuperscript{14}

A prospective, cohort study of 9757 HD patients in 11 countries found no cardiovascular or total mortality benefits associated with consumption of Mediterranean or DASH diets. The intake of 260 foods was assessed with their frequency of consumption classified into one of the eight categories from rarely/never to four or more times daily.\textsuperscript{15}

In a prospective 24 week, randomize trial in 60 HD patients, replacing lanthanum carbonate with ferric citrate in 30 patients was associated with a significant fall in FGF-23 (11 000 to 7240 pg/mL vs 10 850 to 11 160 pg/mL in the lanthanum controls). Levels of calcium, phosphate, and PTH did not change in the two groups.\textsuperscript{16}

A case control analysis of USRDS data found that the adjusted likelihood of withdrawal from dialysis was increased in older patients (OR 1.61 for ≥85 years vs 65-74 years) and with increased morbidity score (OR 12.1 for the highest vs lowest scores). Blacks, Asians, and Hispanics were far less likely to withdraw than whites (OR 0.36, 0.7, and 0.46, respectively); women also stopped dialysis more often than men (OR 1.07).\textsuperscript{17}

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