

Base di evidenza relativa al trattamento dietetico dell'IRC in fase sostitutiva - trapianto

Giorgio Bedogni

Domande

- Quali sono le alterazioni dello stato di nutrizione/salute suscettibili (almeno parzialmente) di trattamento dietetico nel paziente con trapianto renale?
- Quali sono gli interventi nutrizionali utilizzabili e qual è il loro grado di evidenza?

CARI/DAA guidelines

REVIEW

Evidence-based Guidelines for the Nutritional Management of Adult Kidney Transplant Recipients

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CARI/DAA development project

Development of Evidence-Based Guidelines for the Nutritional Management of Adult Kidney Transplant Recipients

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CARI/DAA guidelines

Objective: The present article summarizes the key recommendations of the evidence-based guidelines developed for the nutritional management of adult kidney transplant recipients.

Background and Methods: Nutrition interventions play an important role in preventing and managing common health problems associated with renal transplantation such as obesity, hypertension, diabetes, and cardiovascular disease. Two sets of guidelines were developed by a working group of renal dietitians and nephrologists. They were subject to expert panel review, and public consultation by renal clinicians and consumers before final endorsement by 2 authorities in Australia - Caring for Australasians with Renal Impairment (CARI) and Dietitians Association of Australia (DAA). Protocol and rigor of guideline development were previously described and published in the *Journal of Renal Nutrition*, 2009.

Results and Outcomes: These guidelines address 13 priority topics identified by the renal community and complement each other with different emphasis, from research translation to day to day clinical practice recommendations. The published guidelines are available to the public through web-access of CARI and DAA, and journal publications. Information includes the guidelines themselves with level of evidence stated, grading of recommendations, suggestions for clinical care, search strategy, background and summary of evidence, recommendations of other guidelines, practice recommendations, appendices of useful tools, and suggestions for audits and future research.

Conclusions: Two sets of comprehensive evidence-based nutrition guidelines from CARI and DAA are now available to help improve health outcomes of adult kidney transplant recipients.

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1. Anemia

- Background
 - Anemia is a risk factor for cardiovascular disease and is reported to be common among kidney transplant recipients.

1. Anemia

- Guidelines
 - No recommendations possible based on Level I or II evidence.

1. Anemia

- Suggestions for Clinical Care
 - All adult kidney transplant recipients should be monitored for anemia. Possible dietary causes of anemia, including iron, folate, and vitamin B12 deficiencies, should be investigated.

2. Bone disease

- Background
 - Significant abnormalities of bone remodeling at the time of transplantation are caused by chronic kidney disease and further weakening of bones after transplantation is caused by prednisone, reduced calcium absorption, and hyperparathyroidism.

2. Bone disease

- Guidelines
 - (1) Daily supplementation with 0.25 to 0.50 µg calcitriol (1,25-dihydroxyvitamin D) has a beneficial effect on bone mineral density in adult kidney transplant recipients (level I evidence).
 - (2) Combination treatment with calcium and vitamin D supplementation is more effective in preserving bone mineral density than vitamin D supplementation alone (level II evidence).

2. Bone disease

- Suggestions for Clinical Care
 - The physician treating bone diseases should determine the need for and dosage of medications and supplements aimed at minimizing bone mineral density loss, on the basis of available evidence.

3. Diabetes mellitus (NODAT)

- Background
 - About 20% of patients develop new-onset diabetes after renal transplantation 1-year post-transplantation. It is a life-long problem and not a temporary aberration driven by high dosage of steroid exposure in the acute post-transplant phase. Obesity and choice of immunosuppressive regimen are known to be the key modifiable risk factors.

3. Diabetes mellitus (NODAT)

- Guidelines
 - No recommendations possible based on Level I or II evidence.

3. Diabetes mellitus (NODAT)

- Suggestions for Clinical Care
 - (1) Post transplant weight gain is strongly associated with the development of diabetes; thus, weight management strategies should be a priority posttransplant.
 - (2) until further research specific to the renal Tx population becomes available, patients should be advised to follow guidelines for the management of type 2 diabetes in the general population.

4. Dyslipidemia

- Background
 - Approximately 60% of patients developed dyslipidemia after renal transplantation, with positive association observed between cholesterol and atherosclerotic cardiovascular disease.

4. Dyslipidemia

- Guidelines
 - (1) A diet rich in whole grain, low glycemic index, and high fiber carbohydrates, as well as rich sources of vitamin E and monounsaturated fat should be recommended to adult kidney transplant recipients with elevated serum total cholesterol, low density lipoprotein (LDL)-cholesterol, and triglycerides.
 - (2) Kidney transplant recipients with dyslipidemia should be advised to eat a diet which reflects the evidence in line with lipid management guidelines for the general population.

5. Food-borne illness

- Background
 - Food-borne illness, such as listeria, is recognized as a particular risk for a person whose immune system is compromised, including the kidney transplant recipient.
 - However, little data is available regarding listeria infection rates in the kidney transplant recipient population.

5. Food-borne illness

- Guidelines
 - No recommendations possible based on Level I or II evidence.

5. Food-borne illness

- Suggestions for Clinical Care
 - Although there is no evidence to support the use of restrictive low bacteria diets, it is prudent to provide general food safety advice to the recipients of kidney transplant.

6. Hypertension

- Background
 - Hypertension is common in renal transplant recipients and is a risk factor for cardiovascular disease which is a significant cause of morbidity and mortality in this population.

6. Hypertension

- Guidelines
 - No recommendations possible based on Level I or II evidence.

6. Hypertension

- Suggestions for Clinical Care
 - (1) Stable hypertensive kidney transplant recipients should be advised to restrict sodium intake to 80 to 100 mmol/day.
 - (2) When overweight or obese, these recipients should be encouraged and supported to reduce their weight.

7. Hypophosphatemia

- Background
 - Hypophosphatemia is common in both early- and long-term posttransplant patients.
 - It is associated with a range of complications such as bone disorders osteomalacia and osteodystrophy at various phases post-transplantation.

7. Hypophosphatemia

- Guidelines
 - No recommendations possible based on Level I or II evidence.

7. Hypophosphatemia

- Suggestions for Clinical Care
 - Physicians should be aware that phosphate supplementation has the potential to worsen hyperparathyroidism and may mask phosphorus deficiency beyond 3 months post-transplant.
 - Supplementation may be considered if hyperphosphatemia persists despite adequate dietary intake.
 - The serum phosphate level at which supplementation should be considered or the dose of replacement to be given is unclear and need clinical judgment.

8. Overweight/obesity

- Background
 - Weight gain after kidney transplantation is common and the resulting overweight and obesity is associated with serious health complications, poor graft function, and graft survival.

8. Overweight/obesity

- Guidelines
 - No recommendations possible based on Level I or II evidence.

8. Overweight/obesity

- Suggestions for Clinical Care
 - Kidney transplant recipients should be referred to a dietitian as soon as practicable after transplantation, for written and verbal advice to prevent weight gain.
 - The dietitian should arrange regular follow-up for the overweight kidney transplant recipient as appropriate until the desired weight loss is achieved because obesity is associated with an increased risk of steroid induced diabetes and cardiovascular disease risk factors as well as long-term graft function and poor graft survival.

9. Protein requirements

- Background
 - Protein requirements change during various phases post-transplant.
 - In the early transplant phase, higher glucocorticoids doses cause higher protein catabolic rate, thus protein requirements are higher.
 - In later stages, excess protein intake may be undesirable in patients with chronic allograft nephropathy.

9. Protein requirements

- Guidelines
 - No recommendations possible based on Level I or II evidence.

9. Protein requirements

- Suggestions for Clinical Care
 - In the first 4 weeks after transplant, a diet providing at least 1.4 g protein/kg/day body weight might reverse negative nitrogen balance and lead to increased muscle mass in kidney transplant re-cipients.
 - Restricting dietary protein in kidney transplant recipients with chronic allograft nephropathy or chronic rejection might be beneficial with respect to kidney function; however, the magnitude of the benefit and a safe level of intake are yet to be identified.

Overweight/obesity

NEPHROLOGY



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Nutritional management of overweight and obesity in adult kidney transplant recipients

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GUIDELINES

No recommendations possible based on Level I or II evidence.

Obesity/overweight

- Kidney transplant recipients should be referred to a dietitian as soon as practicable after transplantation, for written and verbal advice for preventing weight gain (Level III)
- Regular follow-up should be arranged to prevent excessive weight gain (Level III)

Obesity/overweight

- As obesity is associated with an increased risk of steroid induced diabetes and cardiovascular disease risk factors as well as long-term graft function and poor graft survival all members of the health care team should monitor the weight of individual transplant recipients and arrange review by a dietitian if weight gain is a problem.

Obesity/overweight

- Based on studies in the general population, the initial goal of weight loss therapy should be to reduce body weight by approximately 10% from baseline, with weight loss of 1-2 kg per month.
- With success, further weight loss can be attempted if indicated through further assessment.

Grazie