Complementary medicines in pre-dialysis patients

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GUIDELINES

No recommendations possible based on Level I or II evidence

SUGGESTIONS FOR CLINICAL CARE

(Suggestions are based on Level III and IV evidence)

- **Some complementary medicines are toxic to renal tissue. A comprehensive medication and dietary assessment should identify these. Use of these renally toxic agents in existing renal impairment should be advised against. (Level IV evidence and Opinion)**

Practitioners should be aware of over-the-counter combination medications, herbal beverages, and alternative/complementary medications when taking a history.

Most complementary medicines are a combination of both toxic and potentially toxic agents.

If the patient continues the agent/s, close monitoring of renal function should be performed. Initially, monitoring may need to be weekly, and with satisfactory results, the monitoring frequency can be reduced. Monitoring needs to be continued for as long as the agent/s are taken, as toxicity may be delayed. If any reduction in renal function is noticed, the complementary agent/s should be ceased and not reintroduced.

Patients will often not volunteer the use of these agents as they are considered non-toxic or not important, as they are not prescribed.

Reviews or case reports of various agents are referred to in the Appendix.

Some complementary medicines are associated with renal toxicity. Their toxicity is more marked with pre-existing renal disease or reduced glomerular filtration rate (GFR).

Background

Many products are now on the market for the benefit of various renal complaints, and some therapies have adverse effects on the kidneys, especially in the presence of

chronic kidney disease (CKD). This is of concern, as pre-dialysis patients may use complementary medicine because they believe it may slow or prevent the progression of renal disease (Dahl 2001). By no means is the following information exhaustive (see Appendix) but it is presented in an attempt to make the reader more aware of some of the frequently used agents.

Chinese-herb nephropathy (when compared with other types of similar interstitial nephropathy) is typically associated with a lower degree of proteinuria, more severe anaemia and more severe progression to renal failure (Nortier and Vanherweghem 2002).

Some agents that are used for their diuretic effect and which may have adverse renal effects include: agrimony, bearberry, blue flag, blood, boneset, broom, buchu, bugleweed, burdock, celery seed, cleavers, corn silk, couchgrass, dandelion, elder, gravel root, hawthorn berries, juniper, noni juice, kola, lily of the valley, lime, saw palmetto, sea holly, stone root, wild carrot, yarrow, artichoke, guaiacum, pokeroot, shepherd's purse, and uva ursi.

This guideline aims to assess whether improved or reduced renal survival is associated with the use of complementary medicines.

Search strategy

Databases searched: MeSH terms and text words for kidney disease were combined with MeSH terms and text words for traditional medicine and Chinese herbal drugs, then combined with the Cochrane highly sensitive search strategy for randomised controlled trials and search filters for identifying prognosis and aetiology studies. The search was carried out in Medline (1996 – November Week 2 2003). The Cochrane Renal Group Trials Register was also searched for trials not indexed in Medline.
Date of searches: 27 November 2003.

What is the evidence?

No randomised controlled trials (RCTs) are available which address this issue.

Summary of the evidence

There are no RCTs on this topic.

What do the other guidelines say?

Kidney Disease Outcomes Quality Initiative: No recommendation.

British Renal Association: No recommendation.

Canadian Society of Nephrology: No recommendation.

European Dialysis & Transplant Nurses Association/ European Renal Care Association: No recommendation.

Implementation and audit

No recommendations.

Suggestions for future research

No recommendations.

References

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Appendix

Table 1 Some readily available complementary agents and their associated renal side-effects

Name/probable active agent	Other names/found in	Effect	Reference
Aristolochic acid	1. *Aristolochia manshuriensis* 2. Guan MuTong 3. Anyang Jingzhi plaster 4. Dahuong Qingwei pills 5. Daochi pills 6. Fenqing Wulin pills 7. Fuke Fenqing pills 8. Longdon Xiegan pills 9. Xiaoér Jindan tablets	Chinese-herb-type nephropathy. Fanconi syndrome.	Sacks et al 2001, De Nicola et al 2004, Mailloux and Levey 1998, Brady and Hasbargen 1998
Mefenamic acid	Tung Shueh pills	NSAID-like interstitial nephritis.	Pitts et al 1988
Glycyrrhiza	Boui-ougi-tou	Fanconi syndrome.	Mailloux and Levey 1998
Noni juice	Morinda citirfolia	Hyperkalaemia. Mild diuretic effect.	Garibotto et al 1992
Cat's claw	Uncaria tomentosa	Acute renal failure. Contraindicated in patients with organ allografts and on anti-hypertensive agents.	Mailloux and Levey 1998, Ballmer et al 1995
	Taxus celebica (Maybe used to treat diabetes mellitus)	Acute renal failure. Haemolysis.	Mailloux and Levey 1998
Yohimbine		Lupus-like syndrome. Progressive chronic kidney disease.	Mailloux and Levey 1998
Salicin	1. White willow bark 2. Catlins willow 3. European willow 4. Salicin willow		Ballmer et al 1995

Name/probable active agent	Other names/found in	Effect	Reference
	5. With withy 6. Weidenrinde 7. Fieberweidenrinde 8. Maiholzrinde		
Salicortin			See salicin
Sorrel	Rumex acetosa	Oxalosis-like damage (high in oxalic acid content).	Ballmer et al 1995
Rhubarb	1. Canton rhubarb 2. Chinese rhubarb 3. Chang-gi-huang 4. Da-huang 5. Daio 6. Medicinal rhubarb 7. Rhabarber 8. Rheum 9. Rhizoma rei 10. Shenshi rhubarb 11. Tai huang 12. Turkish rhubarb	Oxalosis. Hypokalaemia with chronic use.	Ballmer et al 1995
Garlic	13. Allium sativum 14. Ail 15. Ajo 16. Alii sativi bulbs 17. Russian penicillin 18. Stinky rose 19. Knoblaunch 20. Ola suan 21. Taisan 22. Inniku	Immunostimulant that may lead to organ allograft rejection/ dysfunction.	Ballmer et al 1995
Essiac	1. *Arctium lappa* (burdock root) 2. *Rheum officinale* 3. *Rumex acetosa* (common sorrel leaf) 4. *Ulvis rubra* 5. *Ulvis fulva* (slippery elm bark)	Oxalosis. Hypokalaemia with chronic use.	Ballmer et al 1995; also see entry for rhubarb above.
Ephedra	Ephedra sinica	Hypertension. Urinary retention.	Ballmer et al 1995
Stinging nettle		Oedema.	Molitoris et al 1989
Peppermint oil		Interstitial nephritis.	Molitoris et al 1989