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## Corticosteroid-induced scleroderma renal crisis

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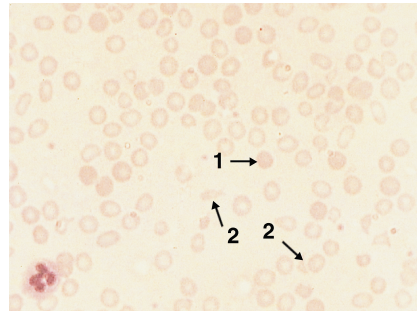
**TO THE EDITOR:** A 63-year-old woman presented with polyuria, polydipsia, lethargy and vomiting. Two weeks previously, she had been diagnosed as having diffuse scleroderma with possible interstitial lung disease, and had started taking 50 mg prednisolone daily. Her past history included diabetes, hypertension, hypercholesterolaemia and  $\beta$ -thalassaemia trait, and her other medications were metformin, glibenclamide, quinapril and amlodipine.

Examination revealed blood pressure 150/60 mmHg, a loud second heart sound with no murmurs, and late inspiratory crepitations at lung bases. Her serum creatinine concentration was 270  $\mu$ mol/L (compared with 100  $\mu$ mol/L two weeks previously) and serum glucose concentration was 26.5 mmol/L. Treatment by the admitting doctor included insulin, rehydration, and cessation of prednisolone (given hyperglycaemia) and quinapril (secondary to acute renal impairment). She developed a fever and cough, with bilateral pneumonia, which was treated with intravenous ceftriaxone.

Despite normotension, concern regarding scleroderma renal crisis (SRC) was raised. On Day 12 of admission, when renal failure had developed to the dialysis-dependent level (serum creatinine level, 690  $\mu$ mol/L), quinapril was recommenced for its proposed renoprotective effect and haemodialysis was initiated. Microangiopathic haemolytic anaemia (haemoglobin, 7.2 g/L) was diagnosed, with fragmented red blood cells (Box).

Several months later, she continues on haemodialysis three times a week. Renal biopsy was not performed given the clinical picture of diffuse scleroderma and recent

### Peripheral blood film, magnification x40



Changes of thalassaemia (microcytosis and hypochromasia) and microangiopathic haemolysis (fragmented red cells and spherocytes). 1. Spherocytes. 2. Fragmented red blood cells.

corticosteroid use with rapid development of renal failure — consistent with SRC.

SRC is defined as rapidly progressive renal failure and/or new onset of malignant hypertension during the course of scleroderma, occurring in 15%–20% of patients with the diffuse variety.<sup>1</sup> Risk factors include male sex, black race, and early diffuse scleroderma with rapidly progressive skin thickening.<sup>2</sup> Precipitation of SRC by corticosteroid use, especially in normotensive patients, is well described, particularly with high-dose (>15 mg/day) treatment.<sup>2</sup>

Early diagnosis is critical because treatment may preserve renal function.<sup>3</sup> Outcomes have improved with use of angiotensin-converting enzyme (ACE) inhibitors,<sup>2</sup> which are thought to improve renal function by controlling the high renin levels seen in patients with SRC. About 61% of patients have a good outcome, with no or temporary dialysis.<sup>3</sup> Predictors of poor outcome, despite ACE inhibitor use, include older age, male sex, higher initial serum creatinine level, and scleroderma myocardial disease.<sup>1</sup> Eleven per cent of SRC patients remain normotensive and have significantly reduced 12-month survival rates.<sup>4</sup> This may relate to delay in diagnosis of SRC.

The use of high dose corticosteroids in patients with early diffuse scleroderma should be strongly discouraged, and intensive monitoring for SRC is recommended if low dose corticosteroids are required.

1. Steen VD. Scleroderma renal crisis. *Rheum Dis Clin North Am* 1996; 22: 861-878.
2. Steen VD, Medsger TA Jr. Case-control study of corticosteroids and other drugs that either precipitate or protect from the development of scleroderma renal crisis. *Arthritis Rheum* 1998; 41: 1613-1619.
3. Steen VD, Medsger TA Jr. Long-term outcomes of scleroderma renal crisis. *Ann Intern Med* 2000; 133: 600-603.
4. Helfrich DJ, Banner B, Steen VD, Medsger TA Jr. Normotensive renal failure in systemic sclerosis. *Arthritis Rheum* 1989; 32: 1128-1134. □

## Should we still give our asthmatic patients written individualised management plans?

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**TO THE EDITOR:** Comprehensive care has been shown to improve outcome in asthma management when it has four components — asthma education, self-monitoring, written self-management plans, and regular medical review.<sup>1,2</sup>

A recent Cochrane Review has explored the role of one of these components — written self-management plans — and concluded that there is “no consistent evidence that written plans produced better patient outcomes”.<sup>3</sup> Should this cause us to change our management strategies in Australian general practice? Does this mean that our patients are not able to care for their own asthma without our intensive assistance?

These findings update a 1998 review of the role of written asthma management plans as part of comprehensive care in 1998: “In five studies which compared subjects who managed their asthma by self-adjustment according to individualised written plan with those whose medications were adjusted by the doctor, lung function data (FEV<sub>1</sub> [forced expiratory volume in one second] and PEF [peak expiratory flow]) were significantly higher in the self-managed group.”<sup>1</sup>

In Australian general practice, between 30% and 50% of patients are given a written asthma management plan.<sup>4</sup> These plans form part of known beneficial comprehensive asthma care plans, such as the Six-Step Asthma Management Plan<sup>5</sup> or the Asthma 3+ Visit Plan.<sup>4</sup>

### Correspondents

We prefer to receive letters by email (editorial@ampco.com.au). Letters must be no longer than 400 words and must include a word count. All letters are subject to editing. Proofs will not normally be supplied. There should be no more than 4 authors per letter. Each author should provide current qualifications and position and full details of postal address, telephone and facsimile numbers.

There should be no more than 5 references. The reference list should not include anything that has not been published or accepted for publication. Reference details must be complete, including: names and initials for up to 4 authors, or 3 authors et al if there are more than 4 (see [mja.com.au/public/information/uniform.html#refs](http://mja.com.au/public/information/uniform.html#refs) for how to cite references other than journal articles).

The small number of available high quality trials for this most recent review led the authors to say, "Available trials are too small and the results too inconsistent to form any firm conclusions", and suggests that more trials are needed to produce a conclusive result.<sup>3</sup>

We should be careful not to lose the positive effects of improved chronic disease management in asthma by over-responding to this one review of one component of comprehensive care.

1. Gibson PG, Coughlan J, Wilson AJ, et al. The effects of self-management education and regular practitioner review in adults with asthma. The Cochrane Library, Issue 4, 1998. Oxford, Update Software.
2. Gibson PG, Coughlan J, Wilson AJ, et al. Self-management education and regular practitioner review for adults with asthma. The Cochrane Library, Issue 3, 2001. Oxford: Update Software.
3. Toelle BG, Ram FSF. Written individualised management plans for asthma in children and adults (Cochrane Review). The Cochrane Library, 2002. Issue 3. Oxford: Update Software.
4. Bubner T, Duszynski A, Beilby J. Final report: asthma 3+ visit plan executive summary and recommendations. Adelaide: Adelaide University: Department of General Practice, 2002.
5. Coughlan J, Wilson A, Gibson P. Summary report of the 1999 evidence-based review of the Australian six step asthma management plan. Sydney: NSW Health, 2000. □

#### Peter G Gibson

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**COMMENT:** A Cochrane systematic review identified the beneficial effects of planned asthma management and education that includes a written action plan.<sup>1</sup> These findings have now been adapted for primary care and implemented as the Asthma 3+ Visit Plan. This involves a systematic assessment of asthma symptoms, lung function, and current treatment at each visit. Treatment and management skills are optimised and the patient is given written instructions on how and when to increase treatment when asthma deteriorates (a written action plan).

A recent Cochrane review asked whether one can get the same benefits by doing less — by simply supplying a patient with a written action plan.<sup>2</sup> The review found that the literature was inconclusive. This doesn't mean that written action plans are not effective; it means that there is not enough evidence to be able to answer the question. The result of "no evidence of effect" is completely different to "evidence of no effect".<sup>3,4</sup> This is a crucial distinction, as many systematic reviews find insufficient evidence to be able to assess a treatment. This is a statement about our ignorance rather than a statement about whether a treatment works or not.

The review also highlights the need to carefully evaluate the control intervention. For example, the control groups in two studies in the systematic review<sup>2</sup> received regular medical review, with assessment of severity and optimisation of inhaled steroid therapy. It is not surprising that these studies found it difficult to identify any additional effect of an action plan.

Cochrane systematic reviews conclude with recommendations for clinical practice that highlight effective treatments,<sup>1</sup> and with recommendations for research that indicate where more information is needed.<sup>2</sup> The review looking at just supplying patients with written action plans<sup>2</sup> exemplifies the latter.

1. Gibson PG, Coughlan J, Wilson AJ, et al. The effects of self-management education and regular practitioner review in adults with asthma. The Cochrane Library, Issue 4, 1998. Oxford, Update Software.
2. Toelle BG, Ram FSF. Written individualised management plans for asthma in children and adults. The Cochrane Library, Issue 3, 2002. Oxford, Update Software.
3. Rothwell PM. Why do clinicians sometimes find it difficult to use the results of systematic reviews in routine clinical practice? *Eval Health Prof* 2002; 25: 200-209.
4. Ezzo J, Bausell B, Moerman DE, et al. Reviewing the reviews. How strong is the evidence? How clear are the conclusions? *Int J Technol Assess Health Care* 2001; 17: 457-466. □

## Death and paramethoxyamphetamine — an evolving problem

#### Werner Jacobs

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**TO THE EDITOR:** I read with great interest the article by Byard et al,<sup>1</sup> as well as the previous work by these authors on paramethoxyamphetamine (PMA)-related fatalities in South Australia.<sup>2</sup> In 2001, I encountered a similar fatal "outbreak" in Belgium: six fatal cases, four of them in the Antwerp metropolitan area.<sup>3,4</sup> Striking similarities between the Belgian and Australian fatalities include the clinical symptoms, the autopsy findings and the history of alleged "ecstasy" intake. Pure PMA tablets were found on a victim with an "xTc" logo pressed onto the surface of the tablets.<sup>3</sup>

I agree with Byard et al<sup>1</sup> that the sudden "outbreaks" of death from PMA intoxication probably do not result from contamination during the synthesis of 3,4-methylenedioxymethamphetamine (MDMA). In Belgium, there are strong indications that the resurgence of PMA resulted from a legal loophole. Early in 2001, PMA was encountered for the first time in the blood sample of a young girl who presented to an emergency department for alleged ecstasy intoxication.

A few weeks later, the first fatal case was reported, and over a period of a few months five other fatal cases were seen.

After the first two deaths, PMA captured a lot of media attention and even evoked some political disturbance. By the end of 2001, PMA and its precursor molecule, *p*-methoxyphenylacetone, were placed on the list of regulated and restricted substances (and hence the unauthorised possession of these products became a criminal offence). Afterwards, no more fatalities were reported. I therefore hypothesise that illicit amphetamine manufacturers were aware of the (temporary) legal vacuum in Belgian law before the deaths occurred and substituted PMA for MDMA because PMA precursors were easier to obtain and less strictly controlled by legislation. It has been suggested in the *Australian illicit drug report 1994*,<sup>5</sup> as well as by Byard et al,<sup>3</sup> that manufacturers of PMA may have been deliberately marketing it as another drug (eg, MDMA) or may have promoted it specifically as a drug to augment the effects of MDMA. If this is the case, there may be serious implications for criminal liability, as we now know that PMA intoxication has a significantly worse clinical outcome than MDMA intoxication (including a greater likelihood of QRS-interval prolongation, extreme hyperthermia, seizures and a significantly lower score on the Glasgow Coma Scale).<sup>6</sup>

1. Byard RW, Rodgers NG, James RA, et al. Death and paramethoxyamphetamine — an evolving problem. *Med J Aust* 2002; 176: 496.
2. Byard RW, Gilbert J, James R, Lokan RJ. Amphetamine derivative fatalities in South Australia — is "ecstasy" the culprit? *Am J Forensic Med Pathol* 1998; 19: 261-265.
3. Voorspoels S, Coucke V, Schepens P, Jacobs W. Paramethoxyamphetamine: first fatalities in Belgium. *Bull TIAFT* 2001; 31: 12-13.
4. Voorspoels S, Coucke V, Covaci A, et al. Resurgence of a lethal drug: paramethoxyamphetamine deaths in Belgium. *J Toxicol Clin Toxicol* 2002; 40: 203-204.
5. Australian illicit drug report 1994. Canberra: Australian Bureau of Criminal Intelligence, 1995.
6. Ling LH, Marchant C, Buckley NA, et al. Poisoning with the recreational drug paramethoxyamphetamine ("death"). *Med J Aust* 2001; 174: 453-455. □

## Hospital locums: expensive and problematic

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**TO THE EDITOR:** I read with interest the *MJA* supplement *The student and junior doctor in distress — "our duty of care"*.<sup>1</sup> It is encouraging to see the time, effort and research currently being devoted to the health and mental wellbeing of our colleagues.