Serotonin syndrome

Editor, – In the case report on serotonin syndrome precipitated by an over-the-counter cold remedy (Aust Prescr 2006;29:71), several mechanisms that may have caused this were proposed. I would like to add another contributing mechanism which relates to the patient taking methadone 70 mg daily. Although not a cytochrome P450 2D6 (CYP2D6) substrate, methadone is a potent CYP2D6 inhibitor. It is possible that methadone is able to convert a CYP2D6 extensive metaboliser to a poor metaboliser. This process is known as phenocopying. There are very few data on methadone altering the pharmacokinetics of dextromethorphan in plasma. However, another CYP2D6 inhibitor, quinidine, can raise plasma dextromethorphan concentrations about 40-fold. Hence, the combination of several drugs individually increasing the brain serotonin concentration and the likelihood of methadone increasing the dextromethorphan concentration may also have contributed in part to the patient developing serotonin syndrome.

Andrew Somogyi
Professor and Deputy Head
Discipline of Pharmacology
The University of Adelaide
Adelaide

References

Further reading

Conflict of interest: none declared
Assisting Aboriginal patients with medication management

Editor, – I agree with the letter from Dr Peter Lake regarding assisting Aboriginal patients with access to medicines (Aust Prescr 2006;29:59–60). I work in an Aboriginal Health Service in Port Augusta and we are often the first point of call of people coming down from Anungu Pitjantjatjara Lands. They often present with an empty dosette which is meant to be full of cardiovascular drugs. Sometimes there is no dosette at all. We then have to find, amongst other things, their Centrelink Health Care Card number before we can even think about prescribing.

They generally, and not surprisingly, have no idea as to the bureaucratic requirements of the Pharmaceutical Benefits Scheme. In the interests of compliance, our health service will pay for the drugs, provided they have their Health Care Card. We spend around $100 000 on this each year – none of which we receive funding for. Surely Section 100 should be attached to the patient and not to their address?

Jon Hunt
General practitioner
Pika Wiya Health Services
Port Augusta, SA

Managing painful paediatric procedures

Editor, – Further to the article ‘Managing painful paediatric procedures’ (Aust Prescr 2006;29:94–6), a recent Cochrane review1 affirms what many breastfeeding mothers know instinctively: ‘…that neonates undergoing a single painful procedure should be provided either breastfeeding or supplemental breast milk for analgesia when available compared to positioning/pacifier/holding and swaddling.

If it is not available/feasible to give breastfeeding or supplemental breast milk alternatives such as glucose or sucrose should be considered.’

Tricia Taylor
Pharmacist, Counsellor MotherSafe
Royal Hospital for Women
Randwick, NSW

Reference

Editor, – The methods and techniques outlined in the article ‘Managing painful paediatric procedures’ (Aust Prescr 2006;29:94–6) were excellent and relevant and are used on an almost daily basis in mixed and paediatric emergency departments. However, I feel that the minimisation of pain arising from the procedure of intravenous cannulation was inadequately covered. Intravenous cannulation of ill and injured children and adolescents is common and is often required as an emergency procedure within minutes of the patient presenting.

The use of subcutaneous local anaesthetic has been shown to significantly decrease the pain of intravenous cannulation1,2,3, while not decreasing the success rate of intravenous cannulation attempts.4 In children less than 24 months of age, the success rate with subcutaneous local anaesthetic was 73% versus 77% without subcutaneous local anaesthetic (p = 0.5).5 After skin preparation, the skin overlying the target vessel is pulled laterally and a small volume (approximately 0.2 mL) of 1% lignocaine is injected into the subcutaneous tissue using an insulin syringe. After allowing the skin to return to its former position, the cannula is inserted.

I would urge clinicians to investigate the use of subcutaneous local anaesthetic for intravenous cannulation in both adult and paediatric patients and to incorporate the technique into their practice.

Robert Douglas
Emergency Registrar
Rockingham-Kwinana District Hospital and Fremantle Hospital
Perth

References

Adjunct Professor John Murtagh, author of the article, comments:
I do agree with the use of subcutaneous local anaesthetic to minimise the pain of intravenous cannulation. However, space precluded me from devoting more time to the issue. The use of this method also applies to the common emergency procedure of an intravenous cutdown. A combination of topical anaesthesia and subcutaneous injection is optimal, but not always practical.