LETTERS TO THE EDITOR

Rapid responses

If you have a burning desire to respond to a paper published in Arch Dis Child or Fetal. Neonatal Ed, why not make use of our “rapid response” option?

Log on to our website (www.archdischild.com), find the paper that interests you, click on “full text” and send your response by email by clicking on “submit a response”.

Providing it isn’t libellous or obscene, it will be posted within seven days. You can retrieve it by clicking on “read eLetters” on our homepage.

The editors will decide, as before, whether to also publish it in a future paper issue.

Hypoglycaemia and hypothermia due to nimesulide overdose

Editor—Although toxicity due to chronic administration of nimesulide has been reported,1 to the best of our knowledge there is no report about poisoning due to a single ingestion. We report a 20 month old boy who accidentally took a high dose of nimesulide; 40 mg/kg, 8 times the recommended daily dosage.

Physical examination was unremarkable. Laboratory findings, including hepatic and renal function, were normal, except for low to normal glucose concentration (3.27 mmol/l) and mild acidosis (pH 7.35, bicarbonate 16.9 mmol/l). Gastric lavage with activated charcoal was performed. One third N saline in 16.9 mmol/l. Body temperature fell to 60 mm Hg and 35.0°C. Six hours later, serum glucose concentration was 3.44 mmol/l, venous pH 7.28 and bicarbonate 18.5 mmol/l. His systolic blood pressure and body temperature fell to 60 mm Hg and 35.0°C (auxiliary), respectively. The patient was rewarmed and the intravenous infusion rate increased to 2000 ml/m²/day. Six hours later, his serum glucose concentration was 4.44 mmol/l, venous pH 7.33, and bicarbonate 16.5 mmol/l. Body temperature and blood pressure rose and 20 hours after admission all vital signs became normal, mild acidosis resolving within 24 hours. He was discharged after 48 hours. Physical examination and laboratory findings were normal six days after discharge.

The most striking events in our patient were the development of hypotension and hypothermia. Hypothermia has been reported due to non-steroidal anti-inflammatory drugs overdose,2 but hypothermia due to the antipyretic action of nimesulide has not been reported. Nimesulide produces a dose dependent antipyretic action in rats by inhibiting COX-2, but its effect under normothermic conditions is not known. Although it has been reported that nimesulide might be given to children with hypoglycaemia,3 it may cause hypoglycaemia in high dosages.

We advise frequent monitoring of vital signs and being alert for hypoglycaemia and acidosis in managing acute nimesulide overdose.

E YAPAKCI O UYSAL H DEMIRBILIK O OLGA R N NAÇAR H ÖZEN

Department of Pediatrics, Hacettepe University School of Medicine, Hacettepe University, Bisan Dalgıçmasi Çocuk Hastanesi, Genetometroloji Unitesi, 06100 Ankara, Turkey
e-mail: haozl@hacettepe.edutr


Port-A-Cath use in refractory seizure disorders

Editor,—The use of a totally implantable venous access system (Port-A-Cath) in children has become widespread in the last 15 years. We report a series of three children for whom the Port-A-Cath improved management of their refractory seizures.

Two patients both females with a diagnosis of severe myoclonic epilepsy of infancy and recurrent status epilepticus presented in the first year of life. Both had seizures, which were intractable to multiple anticonvulsants and became refractory to benzodiazepines. Intravenous infusions were started with some success. Again venous access was difficult and a Port-A-Cath was implanted at 4½ years. The first patient developed a candida albicans infection 9 months after insertion. Amphotericin B was given for 14 days and the Port-A-Cath removed. A second device was inserted after the infection was treated and remains in place 6 years later with no further complications. The second patient had her Port-A-Cath removed after 6 years and 5 months when the catheter blocked. A second device has just been inserted. The third patient has had no complications nine months after insertion.

Port-A-Cath devices are widely used in the management of children requiring venous access for longer than 3 months, when peripheral access is difficult and for administration of medications or blood products.1–4 Children who typically benefit have haemophi lia, cystic fibrosis, or malignancies. To our knowledge, there has not been any reference to Port-A-Cath usage in neurologi cal disease.5 In this study of 81 children, one child had the device inserted for home administration of medication. This was removed after a portal infection 3 months after insertion.6

The benefits of a Port-A-Cath include rapid reliable venous access, low maintenance, fewer restrictions on lifestyle, low incidence of infection and malfunction, when compared with externalised systems.7 These benefits are attractive for children with a refractory seizure disorder and their families. Rapid venous access is invaluable to the physician when managing status epilepticus.

JE BOTHWELL JM DOOLEY KE GORDON EP WOOD

Division of Pediatric Neurology, IWK Health Centre, 5850 University Avenue, Halifax, Nova Scotia Canada B3J 3G9

correspondence to: Dr Dooley


Pica in sickle cell disease: “She ate the headboard”

Editor,—Within our sickle cell population, there are a small number of school aged children who eat sponge. Knowing that pica—the compulsive ingestion of inorganic and non-nutritive substances—is more common in tropical countries where cultural and dietary factors play a role, it may not be a surprising finding. However geophagia (soil), pagophagia (ice), and trachophagia (hair) are the only known non-nutritive substances eaten. We cannot explain the predilection for sponge amongst our patients.

Infants place everything in their mouth, and pica occurs in a variety of syndromes associated with brain damage and developmental delay. It is also more common in deprived and neglected children. Neurologi cal complications are not uncommon in sickle cell disease (SCD) but none of our children had cognitive impairment associated with brain damage.

There is a recognised association between iron deficiency and pica, leading to debate as to which is cause and which effect. Natural sponge contains various proteins and minerals, and is often fortified with silica or calcium salts, however, synthetic sponge consists of cellulose alone. We wondered whether a craving of an unidentified salt fuels the eating of a sponge, or whether the taste of sponge is simply orally stimulating.

In one study of pregnant women, 33% with pica had a history of childhood pica and 56% had a positive family history. In our children, four had a positive family history. Therefore, pica can be a response to a nutritional deficit, and being alert for hypoglycaemia and acidosis in managing acute nimesulide overdose.
it can be familial suggesting a learnt behaviour, or developmental and emotional issues may be involved. In America it is classified as an eating disorder, in the UK it is considered a behavioural disorder; it can also be an obsessive-compulsive disorder, or a manifestation of depression.

Our children could shed no light on their compulsion. In six cases the parents found the behaviour so unacceptable that they requested psychological intervention and in four, the behaviour has now stopped. Thus whilst we find this behaviour fascinating, we are no clearer in understanding the aetiology of pica for sponge in this small population of children with SCD.

Maternal nutrition and pregnancy outcome

Editor,—Symonds et al raise interesting issues about the potential use of animal models in examining the impact of nutrition during pregnancy on future risk of adult disease.1 However, their discussion of recent epidemiological research in humans includes several important factual inaccuracies. The authors imply that our analyses and those of Godfrey et al grouped women into categories of energy intake, and suggest that different results might have been obtained had “all the raw data points [been used] to determine potential relations between maternal nutrition and birth weight”. Yet as clearly indicated in both papers,1,2 this is precisely the analysis that was conducted. For information, figure 1 shows the relation of energy intake to birth weight in our study. In each paper, the cut points used in a meta-analysis. We argue that the different methodologies used for dietary reference in energy intake between this is precisely the analysis that was conducted. For information, figure 1 shows the relation of energy intake to birth weight in the methyl group from methyltetrahydrofolate to homocysteine to form methionine. 

For subjects with good body methotrexate levels, nitrous oxide in alleviating pain and anxiety during painful procedures fails to mention the effect of this gas on cobalamin metabolism. Nitrous oxide inactivates cob(T)alamin, the active derivative of vitamin B12 and essential cofactor for the transfer of the methyl group from methyltetrahydrofolate to homocysteine to form methionine.

For subjects with good body methotrexate levels, nitrous oxide in alleviating pain and anxiety during painful procedures fails to mention the effect of this gas on cobalamin metabolism. Nitrous oxide inactivates cob(T)alamin, the active derivative of vitamin B12 and essential cofactor for the transfer of the methyl group from methyltetrahydrofolate to homocysteine to form methionine. 


The outcome of specialist registrars in the southwest region

Editor,—The UK national directive is to increase consultant paediatric numbers substantially over the next 5–10 years which requires the delivery of suitably trained doctors. Higher specialist training in paediatrics is a five year course and there is no basis for suggesting is has any importance to populations in industrialised countries.
maternity leave, time out to undertake essential training in specialties other than paediatrics (for example, anaesthetics for those training in paediatric intensive care), and flexible training. We do not operate a lenient policy for out of programme experience (OOPEx) or leave of absence. We allow OOPEx only for experience that will count towards training. No more than one year is allowed except for those entering an MD or PhD programme, and only four trainees have taken more than one year for research prior to CCST. Moreover, we insist that training in locum appointment for training (LAT) posts in our own region in core paediatrics does count towards CCST. Therefore, in other regions where more liberal policies are operated, or there are more trainees in research posts, training times may be even longer.

Having obtained their CCST, only half of our trainees have currently obtained consultant posts; 75% of the remainder have sought training elsewhere as post-CCST PhD training, lecturer posts, fellowships abroad, or training in another specialty. Therefore the total average training time is further extended. The remaining 25% are locum consultants awaiting a suitable post becoming available. All are geographically restricted and some are also specialty restricted. Our review would therefore suggest that there is a considerable discrepancy between the number of national training numbers issued and the numbers of doctors wishing, or eligible, to take up consultant posts five years later. These issues need to be taken into consideration in manpower planning and in designing the national service framework for the future.

MARY MCGRAW
Regional advisor in paediatrics and chairman of the southwest regional paediatric training committee

Adrenaline syringes: community perspective

EDITOR,—We read with interest the paper by Unsworth1 regarding the over prescribing of adrenaline syringes. We are sure we are not the only community paediatric team who have similar concerns, although perhaps from a different perspective. Dr Unsworth writes of the safety issues. We have more experience of the practical problems.

Thanks to the availability of prompt training for school staff by community personnel, it is now rare for a child to actually be excluded from school because they have an adrenaline injection device. However, they may very well be excluded from other activities such as guide camp or trips abroad.

There is also the increasing problem of young people with adrenaline injection devices moving on to college or work places. Who should train staff there?

Other problems with adrenaline injection devices in our local community include two being lost on the bus, and one being accidentally fired into the interphalangeal joint of a child’s thumb with the needle becoming bent like a fish hook.

There is also the issue of keeping them in date. Parents often forget to renew them, particularly those kept in school. Whilst it does not need to be kept in a refrigerator, adrenaline does deteriorate in warm conditions, and injection devices should be checked to make sure the adrenaline inside remains clear and colourless.

Often, an adrenaline injection device has been prescribed with no demonstration to the child or family on how to give it, nor when to give it. Surely antihistamine should also be prescribed in every case? In most children, it is the only medication, which is going to be needed. English training guidance is available on when to call an ambulance. They could easily make the mistake of trying to take a deteriorating child to hospital in their own car, instead of calling the medical ambulance, or even assuming that they do not need to go to hospital at all if they have given adrenaline. As Dr Unsworth points out, the adrenaline injection does not always save the child’s life.

We would suggest that when an adrenaline injection device is prescribed it must be demonstrated to both the parent and child (if the child is old enough). A dummy pen is helpful for this. Demonstration should be repeated with each repeat prescription of the device. The child and their family should always have a written management protocol, including instructions on expected symptoms, when to give antihistamine, when to call an ambulance, and when to give adrenaline. Such a protocol can then be passed rapidly to the community paediatric team to support the prompt training of school staff.

It is worth remembering that clinical responsibility for the safe administration of a drug rests with the prescriber.

T WOLFF
C RUMNEY
Birmingham Specialist Community Trust, Child and Family Centre, Maas Road, Birmingham B18 2PR, UK
toni@wolffhouse.freeserve.co.uk

Controversies in paediatrics?

EDITOR,—I was very disappointed to see that the first contribution to the Controversy series was not written by a paediatrician. There are plenty of controversial topics in paediatrics, including the one cited. There are also plenty of paediatricians perfectly qualified to write about it. I agreed with Dr Unsworth’s comments about the diagnosis of IgE mediated allergy. The majority of peanut allergics have had a severe reaction in the past and more than 60% have asthma, the second known association with severe reactions.1 According to present opinion, then, even after just one reaction to peanut most subjects are considered at risk of severe future reactions. Many minor reactors to peanut progress to more severe reactions1 and it would be wrong to dismiss this convincingly.1 I do not think there are adequate data to change my practice from needing a very good reason not to prescribe epinephrine to most (but not all) subjects who have reacted to peanut, a food known to be associated with a risk of a severe allergic reaction.

Doctors must remember epinephrine is prescribed to be available for response to infrequent exposure at an uncertain future date, not to be taken four times a day. I have referred to this in the past as analogous to wearing a seatbelt on every car trip, every day, even though a serious car accident is unlikely on any individual day.

Unsworth is not up to date in his comments about the diagnosis of IgE mediated allergy. There are strong data from huge series of challenges, about the negative predictive values of the tests used in allergy clinics.2,3 Unsworth does not even mention formal challenges, the cornerstone of modern food allergy practice. A severe allergic would prescribe an epinephrine kit on the basis of a positive SPT in the absence of a significant history or formal challenge.4

Children and adults at risk of food related anaphylaxis have enough of life’s pleasures denied to them. The provision of epinephrine

1 Unsworth DJ. Adrenaline syringes are vastly over prescribed. Arch Dis Child 2001;84:110–11.
kits allows normal life to go on, involving school, overnight stays at friends, camping, and other normal activities of childhood. Anecdotally, parents seem to me less stressed when they leave clinic with information (however awful the scenarios described) and responses strategies than when they arrive. I have never met a parent who reported being more scared of the epinephrine kits than of the prospect of allergen exposure (with or without epinephrine available).

Families must be taught when to use epinephrine and how to use autoinjectors. Until doctors can tell families that anaphylaxis will never happen we should continue to empower families, ensuring they are ready to respond as best they can to the disaster that allergen exposure represents. When anyone develops a real treatment for food related anaphylaxis I can stop prescribing epinephrine kits to people who currently need them.

J HOURIHANE
Division of Infection, Inflammation and Repair, University of Southampton, Mailpoint 218, Tremona Road, Southampton SO16 6YD, UK


Appropriate prescription of epinephrine remains the best available treatment

EDITOR.—Epinephrine kits enable a food allergic child at risk of anaphylaxis to lead a normal life and participate in childhood activities that could easily be denied by a parent terrified of another allergen exposure. Avoidance of allergens rather than rescue epinephrine therapy is the basis of current management of food allergy. However, unexpected exposures are inevitable. Fifty eight per cent of children followed for five years experienced adverse reactions from accidental peanut exposure.1 Peanut is the most common food allergen causing anaphylaxis and pervaded in such a way, in food processing. Anaphylaxis related to foods most commonly occurs in patients who have had previous severe reactions. However, minor initial reaction does not exclude a subsequent severe reaction to peanuts. Any person with anaphylaxis deserves the best available protection. It is reasonable to always have two Epipens available both at home and at school. And a second Epipen provides back up if a faulty technique is used or one syringe is damaged. Anaphylaxis may be biphasic, recurring in 3% of children admitted with anaphylaxis.1

As advocates of children, paediatricians are unlikely to hand out epinephrine syringes without due consideration of the impact on the child and his or her family. A comprehensive plan with written information is essential for any child seen with a food allergy whether or not epinephrine is prescribed. Sicherer et al showed 20% of children did not carry epinephrine outside the home and only 55% had unexpired epinephrine on them. However, successful demonstration was associated with repeat prescriptions, membership of a lay organisation for food allergy, and being reviewed by a dietitian. A training package for schools such as that devised by Vickers in Cambridge are valuable.

Unsworth states that “Community use should be much more restricted with in-depth involvement and reliance on trained medical staff”. Food allergy is the most common cause of anaphylaxis in children outside hospital. Early recognition and use of epinephrine is vital for successful outcome. The median time to respiratory or cardiac arrest was thirty minutes in fatal cases of anaphylaxis in one series.2 Surely this implies that the community is the setting where epinephrine should be given by appropriately trained parents and carers to a food allergic child with signs of anaphylaxis. Parents should be empowered as limited resources prevent medical staff being present immediately. Indeed, epinephrine IV by trained medical staff also appears to be more hazardous than the use of epinephrine in adults. Hourihane prescribes “epinephrine” to “most (but not all) subjects who have reacted to peanuts”. He would not prescribe for schools where the community is the setting where epinephrine is vital for successful outcome.

In the absence of any other treatments for food related anaphylaxis, the considered use of epinephrine kits as part of an integrated management plan is the best choice.

J ABAY
Southampton General Hospital, Tremona Road, Southampton SO16 6YD, UK
janeabay@hotmail.com

Reply

EDITOR,—I was pleased to see that my article provoked lively discussion of this important issue. I am not surprised that there are people concerned about poor compliance. I agree with Wolff and Runney that adrenaline should never be the sole prescription. In addition to antihistamines, prednisolone has a place. The idea of a written management plan also seems sensible.

Hourihane contrasted prescription of adrenaline with provision of insulin syringes in diabetes mellitus. We do not restrict provision of insulin syringes in that context because to do so would inevitably lead to hypoglycaemia and ill health in all cases, ranging from coma to retinopathy. The risk benefit ratio is clearly in favour of daily insulin use. By contrast, the “very high” number of adrenaline prescriptions6 implies that perhaps even in death in food allergic individuals, does by contrast raise concerns about the risk benefit ratio. In our clinics, where we see large numbers of both adults and children, reviewing the last few years, we have seen one fatal and two near fatal episodes related to adrenaline usage (submitted for publication). Admittedly, all three were in adults. Hourihane describes “epinephrine” to “most (but not all) subjects who have reacted to peanuts”. He would not prescribe for schools where the community is the setting where epinephrine is vital for successful outcome. The median time to respiratory or cardiac arrest was thirty minutes in fatal cases of anaphylaxis in one series.2 Surely this implies that the community is the setting where epinephrine should be given by appropriately trained parents and carers to a food allergic child with signs of anaphylaxis. Parents should be empowered as limited resources prevent medical staff being present immediately. Indeed, epinephrine IV by trained medical staff also appears to be more hazardous than the use of epinephrine in adults. Hourihane prescribes “epinephrine” to “most (but not all) subjects who have reacted to peanuts”. He would not prescribe for schools where the community is the setting where epinephrine is vital for successful outcome.

In the absence of any other treatments for food related anaphylaxis, the considered use of epinephrine kits as part of an integrated management plan is the best choice.

D J UNSWORTH
Southampton, UK
jounsworth@hotmail.com

1 Unsworth DJ. Adrenaline syringes are vastly over prescribed. Arch Dis Child 2001;84:410–11
Controversies in paediatrics?

J HOURIHANE

Arch Dis Child 2001 85: 510
doi: 10.1136/adc.85.6.510h

Updated information and services can be found at:
http://adc.bmj.com/content/85/6/510.10

These include:

References
This article cites 14 articles, 1 of which you can access for free at:
http://adc.bmj.com/content/85/6/510.10#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/