# Dr Mike South's Literary Digest

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**Citation**

M South. *Dr Mike South's Literary Digest*. The Internet Journal of Pediatrics and Neonatology. 2002 Volume 3 Number 1.

**Abstract**

## ARTICLE REVIEWS

## MORTALITY IN PARENTS AFTER DEATH OF A CHILD IN DENMARK: A NATIONWIDE FOLLOW-UP STUDY

The Lancet Volume 361, Issue 9355, 1 February 2003, Pages 363-367

## DISCUSSION

This study of >300,000 parents in Denmark (21,000 of whom had lost a child under 18 years of age, and 290,000 who had not) is a fascinating insight into the long-term effects of a child bereavement.

In the 1st 3 years after the death, the risk of “unnatural” death (suicide, motor accident, other accidents, and inflicted violence) was increased nearly 4 fold in mothers, and by 50% in fathers.

In the period 10 to 18 years after the death, the mothers (not fathers) also had a nearly 50% higher risk of dying from natural causes with the biggest contribution to this increased mortality being from malignancy.

Unexpected death or death from unnatural causes resulted in higher relative maternal mortality rates than did the expected death of a child. The age of the child at the time of death had no impact on the rates.

This study was only possible because in Denmark every individual has a unique personal ID number for life

## ABSTRACT

## BACKGROUND

Little is known about the effect of parental bereavement on physical health. We investigated whether the death of a child increased mortality in parents.

Methods We undertook a follow-up study based on national registers. From 1980 to 1996, we enrolled 21062 parents in Denmark who had a child who had died (exposed cohort), and 293745 controls—ie, parents whose children were alive, and whose family structure matched that of the exposed cohort. Natural deaths were defined with ICD8 codes 0000–7969 and ICD10 codes A00–R99, and unnatural deaths with codes 8000–9999 and V01–Y98. We used Cox's proportional-hazards regression models to assess the mortality rate of parents up to 18 years after bereavement.

Findings We observed an increased overall mortality rate in mothers whose child had died (hazards ratio 1·43, 95% CI 1·24–1·64; p<0·0001). An excess mortality from natural causes (1·44, 1·15–1·78; p<0·0001) was noted in mothers only during the 10th–18th year of follow-up. Mothers had increased mortality rates from unnatural causes throughout follow-up, with the highest rate recorded during the first 3 years (3·84, 2·48–5·88; p<0·0001). Bereaved fathers had only an early excess mortality from unnatural causes (1·57, 1·06–2·32; P=0·04). Mothers who lost a child due to an unnatural death or an unexpected death had a hazard ratio of 1·72 (1·38–2·15; P=0·0040) and 1·67 (1·37–2·03; P=0·0037), respectively. Interpretation The death of a child is associated with an overall increased mortality from both natural and unnatural causes in mothers, and an early increased mortality from unnatural causes in fathers.

## IMPACT OF THE PNEUMOCOCCAL CONJUGATE VACCINE ON OTITIS MEDIA

The Pediatric Infectious Disease Journal 2003; 22(1):10-16

## DISCUSSION

The new(ish) conjugate vaccine is now well demonstrated to protect against invasive pneumococcal disease, but its impact on otitis media had seemed somewhat disappointing -

probably because otitis media is often caused by serotypes not in the vaccine (and of course because OM is frequently over-diagnosed anyway and no vaccine can prevent this!).

This large study (37,868 children), now shows a statistically very significant (P < 0.0001) and clinically moderate benefit with a 26% reduction in the risk of 10 doctor visits for OM within a 6-month period, and a 24% reduction in ventilation tube placements.

I think we should all be promoting routine pneumococcal conjugate vaccination for children under 2 anyway, but it now seems reasonable to include less ear infections as a benefit when talking to parents. Although the children in this study were not specifically those exhibiting a tendency to recurrent OM, personally I would suggest it to parents of children in this group.

## ABSTRACT

Objective To examine the impact of PCV on the incidence of otitis media, frequent otitis media and tympanostomy tube procedures and to assess whether the effectiveness of the vaccine wanes after age 24 months and varies by race, sex or season.

Design, setting and patients From 1995 to 1998, 37 868 children at Kaiser Permanente in Northern California were randomized to receive PCV or a control vaccine in a double blind trial and were followed through April 1999.

Interventions Children received a primary series at 2, 4 and 6 months of age and a booster at 12 to 15 months.

Main outcome measures Visits for otitis, frequent visits for otitis and tympanostomy tube procedures. Otitis was ascertained from diagnosis checklists routinely marked by physicians.

Results Control children averaged 1.8 otitis visits per year. Children given PCV had fewer otitis visits than control children in every age group, sex, race and season examined. Intention-to-treat analysis permitted rejection of the null hypothesis that PCV is ineffective against otitis media (P <“< 0.0001). In children who completed the primary series per protocol, PCV reduced otitis visits by 7.8% [95% confidence interval (CI), 5.4 to 10.2%] and antibiotic prescriptions by 5.7% (CI 4.2 to 7.2%). Frequent otitis was reduced by amounts that increased with otitis frequency, from a 10% reduction in the risk of 3 visits to a 26% reduction in the risk of 10 visits within a 6-month period. Tube placements were reduced by 24% (CI 12 to 35%).

Conclusion In children followed up to 3.5 years, PCV provided a moderate amount of protection against ear infections while reducing frequent otitis media and tube procedures by greater amounts.

## PREVENTING SLEEPING PROBLEMS IN INFANTS WHO ARE AT RISK OF DEVELOPING THEM

Archives of Disease in Childhood 2003;88:108-111

## DISCUSSION

These investigators found: If around day 7 of age parents keep a diary of feeding for a single 24 hour period, and the baby feeds >11 times in that day, then the baby is nearly 3 times as likely not to be sleeping through the night at 12 weeks of age as a baby who feeds less. They will also take longer to feed, and exhibit more cry/fuss behavior.

In the “feeds >11 times” group, they found a simple intervention (see below) improved sleeping behaviour - 82% vs 61% slept through the night, they also woke less in the day and fed more quickly than those who didn't get the intervention.

It all sounds v simple, and if it works could make a big difference to quality of life for a significant number of parents.

The intervention:

- First, parents are asked to maximise the difference between day and night time environments, by minimising light and social interaction at night.
- Second, they are asked to settle a baby judged to be sleepy in a cot or similar place, and to avoid feeding or cuddling to sleep, at night time.
- Third, once the baby is 3 weeks old, healthy, and putting on weight normally, they can begin to delay feeding when baby wakes at night, in order to dissociate waking from feeding. This is done gradually, using nappy changing or handling to introduce a delay, and does not involve leaving babies to cry.

## ABSTRACT

Aims: (1) To identify factors at 1 week of age which put infants at risk of failing to sleep through the night at 12 weeks of age. (2) To assess whether a behavioural programme increases the likelihood that these infants will sleep through the night at 12 weeks of age.

Methods: A community sample of 316 newborn infants was employed to identify the risk factors at 1 week of age which increased the likelihood of failing to sleep through the night at 12 weeks of age. Infants who met these risk criteria and were randomly assigned to a behavioural programme were compared with at risk infants in the control group on measures of sleeping, crying, and feeding at 12 weeks of age.

Results: Infants who had a high number (>11) of feeds in 24 hours at 1 week were 2.7 times (95% CI 1.5 to 4.8) more likely than other control group infants to fail to sleep through the night at 12 weeks of age. At 12 weeks, 82% of these at risk infants assigned to the behavioural programme, compared to 61% in the control group, slept through the night. The findings were similar in breast and bottle feeders.

Conclusions: Preventing infant sleeping problems should be more cost effective than treating them after they have arisen. This study provides evidence that it is possible to identify infants who are at risk of failing to sleep through the night at an early age, and that a simple, three step, preventive behavioural programme increases the number who sleep through the night by 21%.

## SUDDEN INFANT DEATH SYNDROME: BED SHARING WITH MOTHERS WHO SMOKE

Archives of Disease in Childhood 2003;88:112-113

## DISCUSSION

Is it safe for babies to sleep in bed with their parents? Quite a bit of evidence on this recently. Many studies (including this one) are limited by their retrospective case series nature (without a true measure of relevant denominators), but this study suggests (v similar to others) that co-sleeping is unsafe if:

- a co-sleeping parent smokes
- a co-sleeping parent uses alcohol / drugs that night
- sleeping on a sofa

Here are the findings of a previous case-control study (Fleming et al BMJ 1999;319:1457-1462 )

Key messsages

- Cosleeping with an infant on a sofa was associated with a particularly high risk of sudden infant death syndrome
- Sharing a room with the parents was associated with a lower risk
- There was no increased risk associated with bed sharing when the infant was placed back in his or her cot
- Among parents who do not smoke or infants older than 14 weeks there was no association between infants being found in the parental bed and an increased risk of sudden infant death syndrome
- The risk linked with bed sharing among younger infants seems to be associated with recent parental consumption of alcohol, overcrowded housing conditions, extreme parental tiredness, and the infant being under a duvet

## ABSTRACT

Aim: To examine the sleeping arrangements of sudden infant death syndrome (SIDS) cases on the Wirral. In particular to determine the prevalence of bed sharing with mothers who smoke, a known risk factor for SIDS.

Methods: Retrospective study of postmortem determined cases of SIDS from 1995 to 2000 on the Wirral peninsula (population 350 000, 3500 annual births). Ambulance crew reports, case notes, health visitor reports, postmortem reports, and case discussion records were studied for each case.

Results: There were 25 cases of SIDS in the postneonatal age group over the six year period. In nine cases the baby was bed sharing with the mother, of whom seven were smokers. Five of these mothers reported using alcohol or illicit drugs on the night of their infant's death. In two further cases the baby slept on a sofa with a parent.

Conclusions: Bed sharing and smoking remain important risk factors for SIDS. Mothers should be advised ante- and postnatally of this combination of risk factors. Such advice

should also include a recommendation not to sleep with their baby if under the influence of alcohol or illicit drugs, and never to sleep on a sofa with their baby. All "Child Health Record" books given to parents on the Wirral now include this advice. "Reduce the Risk" advice leaflets given to parents pre- and postnatally also now carry the recommendation, and health visitors and midwives have been educated with respect to these additions.

## BLOOD PRESSURE IN SLEEP DISORDERED BREATHING

Archives of Disease in Childhood 2003;88:139-142

## DISCUSSION

Sleep disordered breathing (OSA etc) is a known risk factor for hypertension in adults. This small study in children suggests the same occurs in them. This may turn out to be important.

## ABSTRACT

Aims: To investigate blood pressure (BP) in children with sleep disordered breathing (SDB).

Methods: BP was measured during single night polysomnography in 23 suspected SDB child patients with adenotonsillar hypertrophy, but without respiratory or heart failure, or coma. The age related changes of the observed BP were normalised to the BP index. The BP indices were examined in relation to SDB measures, such as the desaturation time (percentage of time with oxygen saturation (SaO2) <90% against the total sleep time), SaO2 nadir, apnoea-hypopnoea index (AHI), and arousal index, in addition to age and body mass index (BMI).

Results: The systolic BP index during rapid eye movement sleep (REMS) tended to correlate with AHI, while the diastolic index during REM sleep showed a significant correlation with AHI. The BP indices during non-REMS and wakefulness showed no correlation with the parameters obtained. Patients with an AHI of 10 or more (n = 7, AHIhigh) had significantly higher systolic and diastolic BP indices during both wakefulness and REMS, compared with those with an AHI of less than 10 (n = 16, AHIlow). Two patients in AHIhigh showed no sleep related dip of diastolic BP, and three patients in AHIlow lacked the sleep related dip in systolic BP. By means of multiple regression analysis, age, BMI, and AHI were found to be significant predictor variables of the systolic BP index during REMS.

Conclusions: BP in paediatric SDB patients is positively correlated with the degree of SDB.

## IMAGING STUDIES AFTER A FIRST FEBRILE URINARY TRACT INFECTION IN YOUNG CHILDREN

NEJM Volume 348:195-202

## DISCUSSION

A recurring theme - what imaging should young children have after their first UTI?

Here is another study supporting the view that extensive imaging investigations are unwarranted.

Here is my v personal interpretation:

- An acute ultrasound is of limited value, unless the child does not respond to therapy as expected, and maybe in the case of v young boys with possible PU valves (which anyway may be generally excluded on careful history and examination of urine stream).
- An MCU will demonstrate reflux (and this will be shown about 40% of children with UTI at this age) - this is only of value if you believe intervention (antibiotic prophylaxis) will alter important outcomes (further scarring, hypertension, renal function impairment). Given the lack of evidence that the intervention achieves this it seems generally unwarranted.
- DMSA scanning can show pathology (pyelonephritis acutely, scarring later) but this rarely changes management.

Given the invasive and unpleasant nature of some of these investigations, and the current lack of evidence for benefit, I believe we generally should not do them in straightforward cases of UTI, and that our efforts and resources would be better directed to early detection by urinalysis and culture during subsequent febrile illnesses in all children with a previous febrile urinary tract infection.

## ABSTRACT

Background Guidelines from the American Academy of Pediatrics recommend obtaining a voiding cystourethrogram

and a renal ultrasonogram for young children after a first urinary tract infection; renal scanning with technetium-99m–labeled dimercaptosuccinic acid has also been endorsed by other authorities. We investigated whether imaging studies altered management or improved outcomes in young children with a first febrile urinary tract infection.

Methods In a prospective trial involving 309 children (1 to 24 months old), an ultrasonogram and an initial renal scan were obtained within 72 hours after diagnosis, contrast voiding cystourethrography was performed one month later, and renal scanning was repeated six months later.

Results The ultrasonographic results were normal in 88 percent of the children (272 of 309); the identified abnormalities did not modify management. Acute pyelonephritis was diagnosed in 61 percent of the children (190 of 309). Thirty-nine percent of the children who underwent cystourethrography (117 of 302) had vesicoureteral reflux; 96 percent of these children (112 of 117) had grade I, II, or III vesicoureteral reflux. Repeated scans were obtained for 89 percent of the children (275 of 309); renal scarring was noted in 9.5 percent of these children (26 of 275).

Conclusions An ultrasonogram performed at the time of acute illness is of limited value. A voiding cystourethrogram for the identification of reflux is useful only if antimicrobial prophylaxis is effective in reducing reinfections and renal scarring. Renal scans obtained at presentation identify children with acute pyelonephritis, and scans obtained six months later identify those with renal scarring. The routine performance of urinalysis, urine culture, or both during subsequent febrile illnesses in all children with a previous febrile urinary tract infection will probably obviate the need to obtain either early or late scans.

## URETHROVAGINAL REFLUX—A COMMON CAUSE OF DAYTIME INCONTINENCE IN GIRLS

PEDIATRICS Vol. 111 No. 1 January 2003, pp. 136-139

## DISCUSSION

In my experience, this problem is moderately common yet easily overlooked. They girls are often a bit chubby and a careful history usually reveals the problem without the need for any tests. Voiding with the legs widely spread (even sitting on the toilet facing the cistern) will usually fix it and confirm the diagnosis.

## ABSTRACT

Objective The objective of this study was to estimate the frequency of urethrovaginal reflux as the cause of daytime incontinence in school-age girls, and to study the characteristic symptoms and the effect of simple instructions intended to amend the problem.

Material and Methods. Girls with urethrovaginal reflux were identified in a group of 169 girls, aged 7 to 15 years, referred to a specialist clinic because of daytime incontinence. They were evaluated by a noninvasive screening protocol, including a careful history and neurourologic examination, bladder diaries, urine analysis, uroflows, and residual urine determined by ultrasound. Girls with urethrovaginal reflux were instructed by a urotherapist on how to achieve better toilet habits.

Results. Urethrovaginal reflux was found in 21 (12.4%) of 169 girls as the sole (19) or contributing (2) cause of their daytime urinary incontinence. They all had a typical history of small leakage 5 to 10 minutes after voidings during the day, confirmed by a specific bladder diary. All were neurologically healthy, and all but 2 had a normal bladder function. The latter 2 girls had residual urine and asymptomatic bacteriuria. At follow-up after median 2 years, all girls were free from postmicturition leakage, but the 2 with residual urine remained daytime incontinent with cystometrically proven phasic detrusor overactivity.

Conclusions.Urethrovaginal reflux is a common cause of urinary incontinence in girls. The diagnosis is easily obtained by an adequate history, completed with a specific bladder diary. The problem is easily resolved by proper voiding instructions.

## SYSTEMATIC REVIEW OF TREATMENTS FOR RECURRENT ABDOMINAL PAIN

PEDIATRICS Vol. 111 No. 1 January 2003, pp. e1-e11

## DISCUSSION

Recurrent Abdominal Pain is a common paediatric problem, and the term probably covers a number of different true diagnostic entities. This review article looks at a diverse group of therapies that appear to be effective although success is probably dependant on selecting the right treatment for the specific diagnosis if one can be made.

The full review is worth a read.

(Famotidine is an H-2 blocker (histamine blocker) like ranitidine and Pizotifen is a competitive seratonin antagonist often used to treat migraine. )

## ABSTRACT

Objective. To conduct a systematic review of evaluated treatments for recurrent abdominal pain (RAP) in children.

Methods. Online bibliographic databases were searched for the terms “recurrent abdominal pain,” “functional abdominal pain,” “children,” or “alternative therapies” in articles classified as randomized controlled trials. The abstracts or full text of 57 relevant articles were examined; 10 of these met inclusion criteria. Inclusion criteria required that the study involve children aged 5 to 18 years, subjects have a diagnosis of RAP, and that subjects were allocated randomly to treatment or control groups. The methodology and findings of these articles were evaluated critically, and data were extracted from each article regarding study methods, specific interventions, outcomes measured, and results.

Results. Studies that evaluated famotidine, pizotifen, cognitive-behavioral therapy, biofeedback, and peppermint oil enteric-coated capsules showed a decrease in measured pain outcomes for those who received the interventions when compared with others in control groups. The studies that evaluated dietary interventions had conflicting results, in the case of fiber, or showed no efficacy, in the case of lactose avoidance.

Conclusions. Evidence for efficacy of treatment of RAP in children was found for therapies that used famotidine, pizotifen, cognitive-behavioral therapy, biofeedback, and peppermint oil enteric-coated capsules. The effects of dietary fiber were less conclusive, and the use of a lactose-free diet showed no improvement. There seemed to be greater improvement when therapy (famotidine, pizotifen, peppermint oil) was targeted to the specific functional gastrointestinal disorder (dyspepsia, abdominal migraine, irritable bowel syndrome). The behavioral interventions seemed to have a general positive effect on children with nonspecific RAP. Many of these therapies have not been used widely as standard treatment for children with RAP. Although the mechanism of action for each effective therapy is not fully understood, each is believed to be safe for use in RAP.

## THE ROLE OF EMERGENT NEUROIMAGING IN CHILDREN WITH NEW-ONSET AFEBRILE SEIZURES

PEDIATRICS Vol. 111 No. 1 January 2003, pp. 1-5

## DISCUSSION

Do children with new-onset afebrile seizures need urgent (or “emergent” in US speak) neuroimaging?

This study of 475 cases in Boston suggests that children can be classified into 3 groups: those with a known underlying neurological disorder; those under 3 with a focal seizure; and the rest. for the first 2 groups combined the chance of finding an abnormality was 26% and for the rest (the low risk group) it was 2%.

This supports our current general practice of not performing neuroimaging in previously well children with new-onset afebrile seizures unless they are young and have focal seizure.

## ABSTRACT

Objectives. The objectives of this study were 1) to determine the frequency of clinically significant abnormal neuroimaging in children coming to the emergency department (ED) with new-onset afebrile seizures (ASZ), and 2) to identify children at high or low risk for clinically significant abnormal neuroimaging.

Design/Methods. Five hundred consecutive cases of new-onset ASZ seen in the ED of a tertiary care children's hospital were reviewed. Neuroimaging reports were categorized as normal, clinically insignificant abnormal, or clinically significant abnormal. Recursive partition analysis was used to identify clinical variables that separated children into high- and low-risk groups for clinically significant abnormal neuroimaging. Results. Ninety-five percent of patients (475/500) with new-onset ASZ had neuroimaging. Clinically significant abnormal neuroimaging was noted in 8% (95% confidence interval [CI]: 6, 11; 38/475) of patients. Recursive partition analysis identified 2 criteria associated with high risk for clinically significant abnormal neuroimaging: 1) the presence of a predisposing condition, and 2) focal seizure if <33 months old. Of the high-risk patients, 26% (95% CI: 17, 35; 32/121) had clinically significant abnormal neuroimaging compared with 2% (95%

CI: 0.6, 3.7; 6/354) in the low-risk group.

Conclusions. In this large, retrospective review of children with new-onset ASZ, clinically significant abnormal neuroimaging occurred with relatively low frequency. Emergent neuroimaging should be considered, however, for children who meet high-risk criteria. Well-appearing children who meet low-risk criteria can be safely discharged from the ED (if follow-up can be assured) without emergent neuroimaging, because their risk for clinically significant abnormal neuroimaging is appreciably lower.

## DOES THE TREATMENT OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER WITH STIMULANTS CONTRIBUTE TO DRUG USE/ABUSE? A 13-YEAR PROSPECTIVE STUDY

PEDIATRICS Vol. 111 No. 1 January 2003, pp. 97-109

## DISCUSSION

Does the use of stimulant medication increase the risk of young adulthood drug abuse? This study (and 11 previous studies) suggest that it does not. The subsequent review article says it may even reduce the risk .

## ABSTRACT

Objective. To examine the impact of stimulant treatment during childhood and high school on risk for substance use, dependence, and abuse by young adulthood.

Methods. A total of 147 clinic-referred hyperactive children were followed approximately 13 years into adulthood (mean: 21 years old; range: 19–25). At adolescent (age 15) and adult follow-up, probands were interviewed about their use of various substances and duration of stimulant treatment.

Results. Duration of stimulant treatment was not significantly associated with frequency of any form of drug use by young adulthood. Stimulant-treated children had no greater risk of ever trying drugs by adolescence or any significantly greater frequency of drug use by young adulthood. Stimulant treatment in high school also did not influence drug use in adulthood except for greater use of cocaine. This difference was no longer significant after controlling for severity of attention-deficit/hyperactivity disorder and conduct disorder in childhood, adolescence, and adulthood. Stimulant treatment in either childhood or high school was not associated with any greater risk for any formal Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised drug dependence or abuse disorders by adulthood. Treatment with stimulants did not increase the risk of ever having tried most illegal substances by adulthood except for cocaine. Subsequent analyses showed that this elevated risk was primarily mediated by severity of conduct disorder by young adulthood and not by stimulant treatment in childhood.

Conclusion. This study concurs with 11 previous studies in finding no compelling evidence that stimulant treatment of children with attention-deficit/hyperactivity disorder leads to an increased risk for substance experimentation, use, dependence, or abuse by adulthood.

## DOES STIMULANT THERAPY OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER BEGET LATER SUBSTANCE ABUSE? A META-ANALYTIC REVIEW OF THE LITERATURE

## ABSTRACT

Objective. Concerns exist that stimulant therapy of youths with attention-deficit/hyperactivity disorder (ADHD) may result in an increased risk for subsequent substance use disorders (SUD). We investigated all long-term studies in which pharmacologically treated and untreated youths with ADHD were examined for later SUD outcomes.

Methods. A search of all available prospective and retrospective studies of children, adolescents, and adults with ADHD that had information relating childhood exposure to stimulant therapy and later SUD outcome in adolescence or adulthood was conducted through PubMed supplemented with data from scientific presentations. Meta-analysis was used to evaluate the relationship between stimulant therapy and subsequent SUD in youths with ADHD in general while addressing specifically differential effects on alcohol use disorders or drug use disorders and the potential effects of covariates.

Results. Six studies—2 with follow-up in adolescence and 4 in young adulthood—were included and comprised 674 medicated subjects and 360 unmedicated subjects who were followed at least 4 years. The pooled estimate of the odds ratio indicated a 1.9-fold reduction in risk for SUD in youths who were treated with stimulants compared with youths who did not receive pharmacotherapy for ADHD (z = 2.1; 95% confidence interval for odds ratio [OR]: 1.1–3.6). We found similar reductions in risk for later drug and alcohol use disorders (z = 1.1). Studies that reported follow-up into adolescence showed a greater protective effect on the development of SUD (OR: 5.8) than studies that followed

subjects into adulthood (OR: 1.4). Additional analyses showed that the results could not be accounted for by any single study or by publication bias.

Conclusion. Our results suggest that stimulant therapy in childhood is associated with a reduction in the risk for subsequent drug and alcohol use disorders.

## INCIDENCE OF CRANIAL ASYMMETRY IN HEALTHY NEWBORNS

PEDIATRICS Vol. 110 No. 6 December 2002, pp. e72

## DISCUSSION

In this study of 200 newborns, they found the incidence of neonatal cranial flattening in singletons was 13%, and in twins 56%. The authors state that they have seen a considerable increase in the incidence of posterior plagiocephaly following the changes in recommended sleeping posture for babies (to avoid SIDS) - I'm not sure if this is true, but lots of babies do seem to have flat heads. MIKE

## ABSTRACT

Objective. During recent years, coincident with the recommendation to position infants supine, the incidence of posterior deformational plagiocephaly has increased dramatically. The purpose of our study was to determine whether early signs of cranial flattening could be detected in healthy neonates and to document incidence and potential risk factors.

Design.A cross-sectional study was performed in healthy newborns. Physical findings, anthropometric cranial measurements, and data on pregnancy and birth were recorded.

Results. The incidence of localized cranial flattening in singletons was 13%; other anomalous head shapes were found in 11% of single-born neonates. In twins, localized flat areas were much more frequent with an incidence of 56%. The following risk factors for cranial deformation were identified: assisted vaginal delivery, prolonged labor, unusual birth position, primiparity, and male gender.

Conclusion.We propose that localized lateral or occipital cranial flattening at birth is a precursor to posterior deformational plagiocephaly. The infant lies supine, with the head turned to the flattened area, and is unable to roll. Intrauterine risk factors for localized cranial flattening are the same as for deformational plagiocephaly. To avoid postnatal progression from a localized cranial flattening to posterior-lateral deformational plagiocephaly, we suggest amending the recommendation of the American Academy of Pediatrics on sleep position: Alternate the head position and allow sleeping on the side and, when awake, supervise prone time.

## PAIN REDUCTION AT VENIPUNCTURE IN NEWBORNS: ORAL GLUCOSE COMPARED WITH LOCAL ANESTHETIC CREAM

PEDIATRICS Vol. 110 No. 6 December 2002, pp. 1053-1057

## DISCUSSION

Which is better for reducing the pain of neonatal procedures, Glucose or EMLA? The study seems to suggest that Glucose is better (that's lucky because it is less expensive!). I wonder about the potential benefits of using both.

## ABSTRACT

Objective. A number of studies have shown that orally administered sweet-tasting solutions reduce signs of pain during painful procedures. The local anesthetic cream EMLA has recently been shown to be safe for use in neonates. This study compared the pain-reducing effect of orally administered glucose with that of EMLA cream during venipuncture in newborns.

Methods. Randomized, controlled, double-blind study including 201 newborns undergoing venipuncture for clinical purposes. Ninety-nine of the newborns received EMLA on the skin and orally administered placebo (sterile water), and 102 received glucose 30% orally and placebo (Unguentum Merck) on the skin. Symptoms associated with pain at venipuncture were measured with the Premature Infant Pain Profile (PIPP) scale (also validated for full-term infants). Heart rate and crying time were recorded.

Results. There were no differences in background variables between the 2 groups. The results shows that the PIPP scores were significantly lower in the glucose group (mean: 4.6) compared with the EMLA group (mean: 5.7). The duration of crying in the first 3 minutes was significantly lower in the glucose group (median: 1 second) than in the EMLA group (median: 18 seconds). There were significantly fewer patients in the glucose group who were scored having pain (defined as PIPP score above 6); 19.3% compared with 41.7% in the EMLA group. The changes in heart rate were

similar in both groups.

Conclusions. We found that glucose is effective in reducing symptoms associated with pain from venipuncture in newborns and seems to be better than the local anesthetic cream EMLA.

## SYSTEMIC STEROID FOR CHRONIC OTITIS MEDIA WITH EFFUSION IN CHILDREN

PEDIATRICS Vol. 110 No. 6 December 2002, pp. 1071-1080

## DISCUSSION

This is an old topic, but still relevant. Do Systemic Steroids help to resolve Chronic Otitis Media With Effusion (glue ear) in Children?

This study from one of the key centres of paediatric ENT research, suggests a small but only very short term benefited using steroids. Seems like it can't be recommended as useful therapy.

Here is the Cochrane review conclusion too: “There was no evidence of benefit for steroid treatment for resolution of OME or of resolution of hearing loss associated with OME in the longer term. “

## ABSTRACT

Objective. To determine the efficacy of a short course of an adrenocorticosteroid agent (prednisolone) given with amoxicillin as compared with that of amoxicillin alone for the treatment of chronic middle ear effusion (MEE). The efficacy of 2 weeks versus 4 weeks of amoxicillin with and without steroid was also assessed.

Methods. In a double-blind, randomized trial, children who were 1 to 9 years of age and had MEE of at least 2 months' duration were assigned to 1 of 4 treatment arms: 1) steroid + amoxicillin for 14 days, then amoxicillin for 14 more days; 2) steroid + amoxicillin for 14 days, then placebo for amoxicillin for 14 more days; 3) placebo (for steroid) + amoxicillin for 14 days, then amoxicillin for 14 more days; or 4) placebo (for steroid) + amoxicillin for 14 days, then placebo for amoxicillin for 14 more days. Children were examined by otoscopy, tympanometry, and audiometry at entry and 2 and 4 weeks after entry; those without MEE at the 4-week visit returned monthly for up to 3 more visits or until recurrence of effusion. Serum immunoglobulin (Ig) G, IgM, IgA, and varicella titers were obtained at entry, and allergy skin testing was performed at the 4-week visit.

Results. A total of 144 children was entered; 135 children (94%) returned for the 2-week visit, and 132 (92%) were seen for the 4-week visit. At the 2-week visit, 33.3% of children in the steroid + amoxicillin group had no MEE compared with 16.7% in the placebo + amoxicillin group (95% confidence interval for the difference in proportions: 2.4%–31.0%). At the 4-week visit, the percentage of children with no MEE in the steroid-treated group was 32.8%, whereas that in the placebo group was 20.0% (95% confidence interval for the difference in proportions in the 2 groups: -2.0%–27.7%). Comparing change in middle ear status from the 2- to the 4-week visit, there were no significant differences in recurrence of MEE or additional clearance of MEE between those who were treated with amoxicillin for 2 weeks and those who were treated for 4 weeks. By the 4-month visit, 68.4% of children who were in the steroid group and had no MEE at the 4-week visit had recurrence of MEE as did 69.2% of such children in the placebo group. A total of 126 (87.5%) children underwent allergy skin testing. Of the 122 children who had a positive reaction to histamine, 51 (41.8%) had 1 or more positive reactions to the test allergens. There was no difference in response to treatment between those with positive allergy tests and those without.

Conclusions. There was a significant difference in the proportion of children who were effusion-free immediately after 14 days of treatment with steroid and amoxicillin compared with those who were treated only with amoxicillin for 14 days. Within 2 weeks of finishing treatment, there was no longer any significant difference between the 2 groups regardless of whether amoxicillin was continued or not. Therefore, we conclude that treatment with the dose and type of steroid used in this study should not be universally recommended for treatment of chronic otitis media with effusion, and treatment with amoxicillin, if used, should not continue beyond 14 days.

## SURVEY OF ADRENAL CRISIS ASSOCIATED WITH INHALED CORTICOSTEROIDS IN THE UNITED KINGDOM

Archives of Disease in Childhood 2002;87:457-461

## DISCUSSION

These authors have published several articles on adrenal suppression with inhaled steroids.
It is a useful reminder that inhaled steroids are safe at normal doses, but we should beware of very high doses, especially

of fluticasone.

- Always try and use the minimal effective dose.
- Only use doses over 1000mcg if there is a documented benefit (the studies generally don't support higher doses).
- Consider an ACTH stimulation test for those on doses over 1000mcg they are to continue.
- Don't stop high doses abruptly.

## ABSTRACT

Background: Until recently, only two cases of acute adrenal crisis associated with inhaled corticosteroids (ICS) had been reported worldwide. We identified four additional cases and sought to survey the frequency of this side effect in the United Kingdom.

Methods: Questionnaires were sent to all consultant paediatricians and adult endocrinologists registered in a UK medical directory, asking whether they had encountered asthmatic patients with acute adrenal crisis associated with ICS. Those responding positively completed a more detailed questionnaire. Diagnosis was confirmed by symptoms/signs and abnormal hypothalamic-pituitary-adrenal axis function test results.

Results: From an initial 2912 questionnaires, 33 patients met the diagnostic criteria (28 children, five adults). Twenty-three children had acute hypoglycaemia (13 with decreased levels of consciousness or coma; nine with coma and convulsions; one with coma, convulsions and death); five had insidious onset of symptoms. Four adults had insidious onset of symptoms; one had hypoglycaemia and convulsions. Of the 33 patients treated with 500–2000 μg/day ICS, 30 (91%) had received fluticasone, one (3%) fluticasone and budesonide, and two (6%) beclomethasone.

Conclusions: The frequency of acute adrenal crisis was greater than expected as the majority of these patients were treated with ICS doses supported by British Guidelines on Asthma Management. Despite being the least prescribed and most recently introduced ICS, fluticasone was associated with 94% of the cases. We therefore advise that the licensed dosage of fluticasone for children, 400 μg/day, should not be exceeded unless the patient is being supervised by a physician with experience in problematic asthma. We would also emphasise that until adrenal function has been assessed patients receiving high dose ICS should not have this therapy abruptly terminated as this could precipitate adrenal crisis.

## DOES BREASTFEEDING REDUCE ALLERGIC DISORDERS?

## DISCUSSION

Here are 2 large studies with opposite findings. A NZ study showed no apparent benefit (and possibly some increased risk) but the Swedish study appears to support the view that breastfeeding does reduce allergic disease. I'm sure there will be a lot of debate on this.

The NZ study was longer term (up to age 26years!) but the Swedish study was much larger (but only up to age 2 years). Maybe breastfeeding is protective in the short term but the effect is lost with age (makes some biological sense).

Long-term relation between breastfeeding and development of atopy and asthma in children and young adults: a longitudinal study Lancet 2002; 360: 901-07

## ABSTRACT

Background Breastfeeding is widely advocated to reduce risk of atopy and asthma, but the evidence for such an effect is conflicting. We aimed to assess long-term outcomes of asthma and atopy related to breastfeeding in a New Zealand birth cohort.

Methods Our cohort consisted of 1037 of 1139 children born in Dunedin, New Zealand, between April, 1972, and March, 1973, and residing in Otago province at age 3 years. Children were assessed every 2-5 years from ages 9 to 26 years with respiratory questionnaires, pulmonary function, bronchial challenge, and allergy skin tests. History of breastfeeding had been independently recorded in early childhood.

Findings 504 (49%) of 1037 eligible children were breastfed (4 weeks or longer) and 533 (51%) were not. More children who were breastfed were atopic at all ages from 13 to 21 years to cats (p=0·0001), house dust mites (p=0·0010), and grass pollen (p<0·0001) than those who were not. More children who were breastfed reported current asthma at each assessment between age 9 (p=0·0008) and 26 years (p=0·0008) than those who were not. Breastfeeding effects were not affected by parental history of hayfever or asthma. Multifactor analysis controlling for socioeconomic status, parental smoking, birth order, and use of sheepskin bedding in infancy, showed odds ratios of 1·94 (95% CI 1·42-2·65, p<0·0001) for any allergen positive at age 13 years, 2·40

(1·36-4·26, p=0·0003) for current asthma at 9 years, and 1·83 (1·35-2·47, p<0·0001) for current asthma at 9-26 years by repeated-measures analysis.

Interpretation Breastfeeding does not protect children against atopy and asthma and may even increase the risk.

## BREAST FEEDING AND ALLERGIC DISEASES IN INFANTS—A PROSPECTIVE BIRTH COHORT STUDY

Archives of Disease in Childhood 2002;87:478-481

### ABSTRACT

Aims: To investigate the effect of breast feeding on allergic disease in infants up to 2 years of age.

Methods: A birth cohort of 4089 infants was followed prospectively in Stockholm, Sweden. Information about various exposures was obtained by parental questionnaires when the infants were 2 months old, and about allergic symptoms and feeding at 1 and 2 years of age. Duration of exclusive and partial breast feeding was assessed separately. Symptom related definitions of various allergic diseases were used. Odds ratios (OR) and 95% confidence intervals (CI) were estimated in a multiple logistic regression model. Adjustments were made for potential confounders.

Results: Children exclusively breast fed during four months or more exhibited less asthma (7.7% v 12%, ORadj = 0.7, 95% CI 0.5 to 0.8), less atopic dermatitis (24% v 27%, ORadj = 0.8, 95% CI 0.7 to 1.0), and less suspected allergic rhinitis (6.5% v 9%, ORadj = 0.7, 95% CI 0.5 to 1.0) by 2 years of age. There was a significant risk reduction for asthma related to partial breast feeding during six months or more (ORadj = 0.7, 95% CI 0.5 to 0.9). Three or more of five possible allergic disorders—asthma, suspected allergic rhinitis, atopic dermatitis, food allergy related symptoms, and suspected allergic respiratory symptoms after exposure to pets or pollen—were found in 6.5% of the children. Exclusive breast feeding prevented children from having multiple allergic disease (ORadj = 0.7, 95% CI 0.5 to 0.9) during the first two years of life.

Conclusion: Exclusive breast feeding seems to have a preventive effect on the early development of allergic disease—that is, asthma, atopic dermatitis, and suspected allergic rhinitis, up to 2 years of age. This protective effect was also evident for multiple allergic disease.

## USE OF THE INTERNET BY PARENTS OF PAEDIATRIC OUTPATIENTS

Archives of Disease in Childhood 2002;87:534-536

### DISCUSSION

We all know that parents are commonly using the Internet to access information about their children's health problems. Do we always remember to discuss this with them? (they will usually not volunteer this). The information available on the Internet is of very varied quality and parents need guidance in its interpretation.

### ABSTRACT

Aims: (1) To establish how many parents of children seen in paediatric outpatient departments use the internet to find information about their child's medical condition. (2) To ascertain what information is sought and found, and what proportion of all parents had access to the internet at home or elsewhere. Methods: Over a six week period in 2000, parents of children attending general paediatric outpatient clinics in the district general hospital in Bath and in the 10 associated community hospitals, were asked to complete a questionnaire survey.

Results: Of the 577 questionnaires distributed, 485 were returned, a response rate of 84%. A total of 332 (69%) families owned a computer and 248 (51%) had internet access; 107 (22%) had looked on the internet for information about the problem for which their child was being seen in clinic that day. Parents who knew their child's diagnosis were more likely to have used the internet than those who named their child's symptoms only. A health professional had suggested that parents seek information on the internet in 6% of cases. These parents were more likely to use the internet than parents to whom this had not been suggested (67% v 20%, $p < 0.001$). Eighty nine (84%) parents who had used the internet prior to this clinic appointment found it useful. Thirty six (34%) parents had discussed or were planning to discuss the information they had found with their doctors.

Conclusion: A significant proportion of parents have access to the internet and use it to find information about their child's medical condition. The parents who discuss what they find with the clinic doctor are in the minority. Doctors should be prepared to ask parents about their information needs and discuss use of the internet.

### References

## Author Information

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