

❑ Fetal pulse oximetry and cesarean delivery.

Knowledge of fetal oxygen saturation, as an adjunct to electronic fetal monitoring, may be associated with a significant change in the rate of cesarean deliveries or the infant's condition at birth. 5341 nulliparous women who were at term and in early labor were randomly assigned to either "open" or "masked" fetal pulse oximetry. In the open group, fetal oxygen saturation values were displayed to the clinician. In the masked group, the fetal oxygen sensor was inserted and a computer recorded the values, but the data were hidden. There was no significant difference in the overall rates of cesarean delivery between the open and masked groups (26.3% and 27.5%, respectively; $p = 0.31$). The condition of the infants at birth did not differ significantly between the two groups. (N Engl J Med 2006 Nov 23; 355: 2195-2202.)

Comments: Knowledge of the fetal oxygen saturation is not associated with a reduction in the rate of cesarean delivery or with improvement in the condition of the newborn.

❑ Magnet ingestions in children

Ingestion of nonfood objects, inadvertently or intentionally, is common among young children and also occurs with older children and adolescents. Unless the objects are large or sharp, they usually pass through a child's digestive system without health consequences. However, the Consumer Product Safety Commission (CPSC) has become aware of toy products containing small, powerful rare-earth magnets that pose unique health hazards to children. Since 2003, CPSC staff members have identified one death resulting from ingestion of these magnets and 19 other cases of injuries requiring gastrointestinal surgery. (MMWR Morb Mortal Wkly Rep 2006 Dec 8; 55: 1296-1300)

Comments: Caregivers should keep small magnets away from young children and be aware of the unique risks (*e.g.*, volvulus and bowel perforation) that magnets pose if ingested. When evaluating children who have ingested objects, health-care

providers should be aware of potential complications if magnets might be involved.

❑ Ultrasound guided liver biopsy in infants

The purpose of this study was to assess the technical success and complication rate of sonographically guided percutaneous liver biopsies performed in infants under 1-year-old at a tertiary pediatric center. Retrospective analysis of 65 biopsies performed in 61 infants between January 1999 and December 2003 was conducted. The 61 infants studied included 37 males and 24 females with a mean age of 119 days (age range, 7-348 days; median age, 83 days) and a mean weight of 4.5 kg (1.9-8.3 kg). A total of 65 biopsies were performed in these 61 infants. General anesthesia was used in 66.1% of procedures. One biopsy was considered technically unsuccessful, and 64 of 65 (98.5%) of the biopsies provided adequate tissue for pathologic analysis. There were three (4.6%) major complications related to bleeding: one requiring a blood transfusion, one requiring surgery, and one arterio-biliary fistula requiring transarterial embolization. Three (4.6%) minor complications also occurred. There were no deaths. (AJR 2006 Dec; 187: W644-W649.)

Comments: Sonographically guided percutaneous liver biopsy in infants is a good and effective diagnostic tool. The complication rate, however, even when performed by an experienced physician, is not insignificant in this age group of patients.

❑ Characteristics of patients who leave before being seen

This study identifies patient characteristics associated with uncompleted visits to the emergency department. Patients who left the emergency without being seen (cases) between July 1 and December 31, 2004, were matched to patients who stayed and were treated ($N = 1,476$ pairs) according to registration date and time (± 2 hours). The association between sociodemographic characteristics, previous

emergency visit utilization, and proximity to the emergency and the risk of an uncompleted visit was assessed by the odds ratio (OR) using conditional logistic regression. During the 6-month study period, the overall left-without-being-seen rate was 6.4%. Seventeen percent of cases compared with 5% of controls had at least one previous uncompleted visit during the previous year. After adjusting for all patient characteristics, younger age, being uninsured and a previous uncompleted visit were significantly associated with the risk of an uncompleted visit. (Ann Emerg Med 2006 Dec; 48: 686-693)

Comments: Previous emergency utilization is predictive of future emergency visits. Residents should make every effort to keep their left-without-being-seen rates to a minimum because patients who leave are the least likely to receive care elsewhere.

□ TV watching and analgesia

This study assessed the analgesic effect of passive or active distraction during venipuncture in children. Sixty nine children aged 7-12 years undergoing venipuncture were randomly divided into three groups: a control group without any distraction procedure, a group in which mothers performed active distraction, and a TV group (TV) in which passive distraction (a TV cartoon) was used. Both mothers and children scored pain after the procedure. Scores assigned by mothers and children indicated that procedures performed during TV watching were less painful ($p < 0.05$) than control or procedures performed during active distraction. (Arch Dis Child 2006 Dec; 91: 1015-1027.)

Comments: TV watching was more effective than active distraction. This was due either to the emotional participation of the mothers in the active procedure or to the distracting power of television.

□ Breast-feeding and resilience against psychosocial stress

Some early life exposures may result in a well-controlled stress response, which can reduce stress related anxiety. Breast-feeding may be a marker of some relevant exposures. This study was done to assess whether breast feeding is associated with

modification of the relation between parental divorce and anxiety. Data were obtained from the 1970 British Cohort Study, which is following the lives of those born in one-week in 1970 and living in Great Britain. This study uses information collected at birth and at ages 5 and 10 years for 8958 subjects. Among 5672 non-breast fed subjects, parental divorce/separation was associated with a statistically significantly raised risk of anxiety. Among the breast fed group this association was much lower. Interaction testing confirmed statistically significant effect modification by breast feeding, independent of simultaneous adjustment for multiple potential confounding factors. (Arch Dis Child 2006 Dec; 91: 990-994)

Comments: Breast-feeding is associated with resilience against the psychosocial stress linked with parental divorce/separation.

□ Atropine for the treatment of childhood myopia

This study evaluated the efficacy and safety of topical atropine, a nonselective muscarinic antagonist, in slowing the progression of myopia and ocular axial elongation in Asian children. Four hundred children aged 6 to 12 years with refractive error of spherical equivalent -1.00 to -6.00 diopters (D) and astigmatism of -1.50 D or less were assigned with equal probability to receive either 1% atropine or placebo eye drops once nightly for 2 years. Only one eye of each subject was chosen through randomization for treatment. The main efficacy outcome measures were change in spherical equivalent refraction as measured by cycloplegic autorefraction and change in ocular axial length as measured by ultrasonography. The differences in myopia progression and axial elongation between the 2 groups were -0.92 D (95% confidence interval, -1.10 to -0.77 D; $P < 0.001$) and 0.40 mm (95% confidence interval, 0.35-0.45 mm; $P < 0.001$), respectively. No serious adverse events related to atropine were reported. (Ophthalmology 2006 Dec; 113: 2285-2291.)

Comments: Topical atropine was well tolerated and effective in slowing the progression of low and moderate myopia and ocular axial elongation in Asian children.

□ Capillary refill-time using digital videography

Assessment of dehydration in young children currently depends on clinical judgment, which is relatively inaccurate. The aim of this study was to determine whether digitally measured capillary-refill time assesses the presence of significant dehydration (> or = 5%) in young children with gastroenteritis more accurately than conventional capillary refill and overall clinical assessment. Before any treatment, the weight and digitally measured capillary-refill time of these children were recorded. Pediatric emergency physicians determined capillary-refill time by using conventional methods and degree of dehydration by overall clinical assessment by using a 7-point Likert scale. The accuracy of digitally measured capillary-refill time

was compared with conventional capillary refill and overall clinical assessment by determining sensitivities, specificities, likelihood ratios, and area under the receiver operator characteristic curves. Results of this prospective cohort study suggest that digitally measured capillary-refill time more accurately predicts significant dehydration (> or = 5%) in young children with gastroenteritis than overall clinical assessment. (Pediatrics 2006 Dec; 118: 2402-2408)

Comments: A single clinical sign should not be used to classify dehydration. Using many signs improves the accuracy of assessment of dehydration.

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