

JOURNAL WATCH

Selections from *Journal Watch Pediatrics and Adolescent Medicine*



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Risk for occult head injury in abused children

► The leading cause of death in abused children younger than 2 years is head injury. Early detection can prevent mortality and serious morbidity, but there is no established guideline on screening for head injury in neurologically asymptomatic children with evidence of abuse. These authors reviewed hospital records to estimate the incidence of occult head injury in a high-risk sample of children. The children were admitted to an urban children's hospital between January 1998 and December 2001 with a diagnosis of suspected child abuse, normal neurologic findings, and one of the following high-risk criteria: rib fracture, multiple fractures, facial injury, or age younger than 6 months. Children who had scalp lacerations or histories of neurologic dysfunction, seizures, or respiratory arrest were excluded.

Sixty-five children met the study criteria. The mean age was 6.4 months (range, 0.7-23.9 months), and the median weight was at the 35th percentile for age, with 19% of children below the 5th percentile. Thirty-four percent had rib fracture, 59% had multiple fractures, and 35% had facial injury. All had received skeletal surveys. Of 51 children who also had either a CT scan of the head or an MRI, 19 (37%) had evidence of occult head injury. Of the 19, 74% had skull fractures and 53% had intracranial injuries. Retinal hemorrhages were not evident in 14 of the 19 who underwent ophthalmologic examination.

Comment ► Limitations of this study include the small sample size and a possible selection bias regarding risk factors. Current guidelines for the screening of abused children recommend skeletal surveys. These results demonstrate that such children should also be screened for occult head injury, even in the absence of neurologic findings.

Harlan R. Gephart, MD

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▲ **Source Rubin DM et al.** Occult head injury in high-risk abused children. *Pediatrics* 2003;111:1382-6.

Night lights do not increase nearsightedness risk

► Despite considerable publicity in the popular press about a link between nighttime light exposure and childhood myopia, the association remains controversial (see *Nature* 1999;399:113; *Nature* 2000;404:143; and *Nature* 2000;404:144). In a further test of the strength of this association, 122 subjects (age range, 19 to 36 years; mean age, 21.6; 71% female; 34% Asian) who were recruited from a university population in the U.K. underwent cycloplegic refraction of the right eye. A questionnaire mailed to the subjects' parents requested information on early exposure to nighttime light (whether subjects slept in darkness, with a night light, or in a fully lit room before the age of 2 years). Information on parental refractive status was also requested (whether parents were myopic, as well as vision-correction prescriptions, if available).

No significant association was found between light exposure at night and development of myopia. Nearsightedness was more common in Asians and in those with at least one myopic parent.

Comment ► An initial report of the possible dangers of nighttime lighting created considerable parental anxiety. Although neither of two follow-up studies confirmed the first report, its authors raised the issue of reporting bias in subsequent studies, suggesting that parents

underreport or fail to report behavior that they fear may have harmed their children. This third disconfirming study should reassure parents that there is no definitive evidence that the use of nighttime lighting causes harm.

Walter M. Jay, MD and Susan Jay, MD

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Published in *Journal Watch Pediatrics and Adolescent Medicine* July 28, 2003

▲ **Source Guggenheim JA et al.** Myopia, genetics, and ambient lighting at night in a UK sample. *Br J Ophthalmol* 2003;87:580-2.

Is the big screen going up in smoke?

► Cigarette smoking among children and adolescents is a major public health problem in the U.S., and how best to prevent its initiation is a difficult question. These authors sought to determine how much cigarette smoking adolescents see in movies and which factors may modify such exposure.

The investigators counted the occurrences of smoking in 601 popular movies and then randomly selected a subsample of 50 movies. A total of 4910 New England middle-school students reported which of the subsample movies they had seen; their responses were used to estimate their number of exposures to cinematic smoking.

The students had seen an average of 30% of the movies and were exposed to an estimated 1160 occurrences of on-screen smoking. Exposure to filmed smoking among students who went to the movies more than once a month was 30% greater than among students who did not go at all. Parental restriction of viewing of R-rated movies was associated with a 50% reduction in exposure to movie smoking, although parenting style (e.g., indulgent vs. authoritative) was only weakly associated with exposure.

Comment ► The authors of this elegant study suggest that "teaching parents to monitor and enforce movie access guidelines could reduce adolescent smoking in an indirect yet powerful manner." As children spend less time in the home and more time with their friends, it is vital that parents monitor their children's activities. Such a strategy would be a clear example of how parental supervision can mediate the risks faced by adolescents. Discussing with parents the possibility of limiting movie access is eminently doable and may decrease the risk for smoking initiation.

Elizabeth R. McAnarney, MD

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▲ **Source Sargent JD et al.** Modifying exposure to smoking depicted in movies: A novel approach to preventing adolescent smoking. *Arch Pediatr Adolesc Med* 2003;157:643-8.

New guidelines for pap smears

► The American Cancer Society recently modified its guideline on screening for the early detection of cervical cancer. Guideline authors provide the following background information:

- More than 90% of squamous cell carcinomas of the cervix contain DNA of the human papillomavirus (HPV).
- Natural history studies indicate that infection with high-risk HPV types may produce low-grade or high-grade intraepithelial lesions. Untreated high-grade lesions can progress to cervical carcinoma. The risk for missing important cervical lesions is minimal until 3 to 5 years after initial HPV exposure.
- Most HPV infections neither progress nor produce lesions. In young women, 90% of low-grade and 70% of high-grade lesions regress.

- Traditional Pap smears detect between 70% and 80% of high-grade cervical intraepithelial neoplasias. The newer, liquid-based Pap technologies appear to have higher sensitivity but lower specificity.

These factors have led to many recommendations concerning the care of adolescents, including the following:

- Pap smear examinations should be delayed until 3 years after initiation of vaginal intercourse, but no later than age 21. Earlier testing may lead to inappropriate follow-up and intervention.
- After screening has begun, testing is recommended every year if the traditional Pap smear is used or every 2 years if the new liquid-based Pap smear is employed.

Specific HPV DNA testing as a screen for cervical cancer holds promise but is not yet approved by the Food and Drug Administration. The authors provide additional information on screening older women and women who have had hysterectomies and on when to stop screening.

Comment ► These recommendations are controversial. Many physicians are uncomfortable waiting until 3 years after the initiation of vaginal intercourse to begin testing. Why testing should begin at age 21 in women who have never had vaginal intercourse is uncertain. The authors suggest that the guideline be used as a reference tool and that the initiation and frequency of testing be discussed with patients. In adolescents, testing for sexually transmitted diseases, vaccination, and, now, screening for cervical cancer are rapidly evolving issues. This guideline makes useful reading for providers who care for adolescents.

Howard Bauchner, MD

Additional comment ► The date of first sexual intercourse is hard to confirm from patient history, so depending on this information to decide when to screen for HPV is questionable. Most caretakers believe in performing the first gynecologic screening *before* adolescents who are not sexually active leave high school. Issues of gynecologic screening go beyond Pap smears to many aspects of female adolescents' health, including pelvic examination, sexuality, screening procedures and schedules, and testing for breast cancer and sexually transmitted diseases. This guideline may prove confusing for practitioners who are concerned with all aspects of gynecologic screening of female adolescents.

Elizabeth R. McAnarney, MD
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▲ **Source Saslow D et al.** American Cancer Society guideline for the early detection of cervical neoplasia and cancer. *CA Cancer J Clin* 2002;52:342-62.

Liver transplantation in cystic fibrosis . . . better care, new challenges ►

With improved pulmonary care, patients with cystic fibrosis (CF) are living longer (predicted survival in 2000, 32.2 years) -- long enough to develop complications in other organs. The incidence of CF-associated cirrhosis is 0.8%, with the peak incidence in patients between the ages of 16 and 20. These authors reviewed all cases of children who underwent liver transplantation for CF-related liver disease from March 1981 through December 1998 at a single center. Follow-up continued until March 2002.

Twelve patients received 16 allograft transplants. The mean age at transplant was 10.3 years, and the mean follow-up period was 8.7 years. Three patients had repeat transplants because of primary nonfunction; chronic rejection necessitated a third transplant in one. All but one patient survived 2 or more years after transplantation. Five patients died (range of survival time after initial transplant, 0.07-15.72 years). The 1- and 5-year survival rates were 91.6% and 75.0%, respectively. Nine patients had pulmonary function studies before and after transplantation: Eight of them had improved or stable function. Mean forced vital capacity improved from 78% to 90% of predicted capacity, and mean forced expiratory volume in 1 second improved from 73% to 83% of predicted volume.

The mortality rate 1 year after liver transplantation among all pediatric patients at this center during the study period was 3.6%. The authors conclude that the higher late mortality in the study group probably reflects the natural course of CF. They affirm that transplantation is acceptable treatment for liver failure in children with CF.

Comment ► The prolonged survival of patients with CF is one of the true successes of modern clinical care. These cases demonstrate that solving one problem in patients with systemic illness often brings another to the forefront. We are making progress in managing chronic illness in children and must keep mindful that further needs may arise.

William P. Kanto, Jr., MD
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▲ **Source Fridell JA et al.** Liver transplantation in children with cystic fibrosis: A long-term longitudinal review of a single center's experience. *J Pediatr Surg* 2003;38:1152-6.