Clippings

❑ Which patients of Henoch Schonlien purpura with nephritis will progress to End stage renal disease?

To evaluate this problem and to find out risk factors associated with a poor outcome, records of patients with Henoch-Schönlein purpura glomerulonephritis from 1953-1990, were reviewed. Primary outcome measures were renal survival and presence of urinary abnormalities or hypertension. Of the 65 eligible patients with Henoch Schönlein purpura glomerulonephritis, follow-up data was obtainable for 81.5%. The median follow-up was 20 years. At last follow-up, 66% of patients had normal renal function and urinalyses, and 21% had progressed to end-stage renal disease. The only factor associated with the development of end-stage renal disease was the use of cytotoxic agents. There are no features at initial presentation that identify children at risk of disease progression. Close follow-up of all children with Henoch Schönlein purpura glomerulonephritis is warranted, the authors conclude. (Phila 2007; 46: 505)

***Comments*:** Clearly this study reveals more in its absence of significant findings, the use of cytotoxic agents probably reflects the severity of the initial disease in itself leading to higher chances of long term sequelae.

❑ Can breast milk be a culprit in causing GBS?

Group B streptococcus (GBS) is a major cause of severe systemic infections among the newborn. Both recurrent and maternal mastitis-associated, group B streptococcus diseases are uncommon. Persistence of GBS colonization of infants' mucous membrane is postulated to influence the pathogeneses of recurrent GBS infection. The authors describe a term infant who was treated for GBS sepsis and meningitis and then later developed recurrent GBS sepsis, without meningitis, due to feeding of infected breast milk. Randomly amplified polymorphic DNA polymerase chain reaction assay was performed to demonstrate that the GBS isolates from the first and second episode of infection and the maternal milk are identical. The authors conclude that transmission of GBS through breast milk should be considered in cases of recurrent neonatal GBS infection and bacterial culture of breast milk should be routinely performed in such cases. (Phila 2007; 46: 547)

***Comments*:** While this is no doubt a rare case, and a single one at that, it does give us a new possibility to look at in infants brought with recurrent serious infections.

❑ Anthracyclines toxicity in Acute Myeloid Luekemia – what's new?

Anthracyclines are effective antineoplastic drugs in acute myelogenous leukemia (AML). However, their use is limited by cardiomyopathy, which occurs in children already at cumulative doses of 300 mg/m(2) (given as daunorubicin equivalent). To evaluate anthracycline-associated cardiomyopathy in pediatric AML-patients, the incidence of early and late (>1 year after intensive AML chemotherapy) clinical and subclinical cardiotoxicity was analyzed out of a total of 1,207 patients <18 years treated between 1993 and 2003 in trials AML-BFM. The cumulative dose of anthracyclines was generally risk-adapted: 300-450 mg/m^2 using 1-4-hr infusions of anthracyclines with the assumed lowest cardiotoxic potential. Thirty-eight patients (4.3%) suffered from early cardiomyopathy. Late cardiomyopathy was seen in 16 patients. Nine patients showed clinical symptoms, five of them had persistent abnormal shortening fraction. Thus it was concluded that in spite of a highly intensive and effective treatment, the frequency of anthracycline-associated cardiomyopathy was low in the AML-BFM studies. (Pediatr Blood Cancer 2007; 48: 651)

***Comments*:** This large trial would seem to indicate that anthracyclines usage can be further intensified in cases of AML since the overall prognosis remains grim, and the side-effects of the medicines seem to be potentially less than previously thought.

❑ Childhood onset MS, differences from adults

Childhood onset multiple sclerosis is a rare condtion that apparently behaves differently from the adult onset type of MS. Three hundred ninety-four patients with child-onset MS (developing at age 16 years or younger) were identified from 13 adult neurology departments participating in the European Database for Multiple Sclerosis network. Their clinical features, including times to specific disease progression and disability outcomes, were compared with those of 1,775 patients with adult-onset MS (after age 16). Patients under age 16 accounted for 2.2% of all MS cases reported by the participating departments. Mean age at onset was 13.7 years; nearly three fourths of the childhood-onset cases were girls. Ninety-eight percent of patients with childhood-onset MS had an initial exacerbating-remitting course of disease, compared with 84% of the adult-onset patients. Childhood-onset MS was more likely to present with isolated optic neuritis, isolated brain-stem syndrome, or encephalitic symptoms. Patients with childhood-onset MS took about 10 years longer to reach secondary progression and irreversible disability landmarks compared with adult-onset cases. However, because of their younger age at onset, they were about 10 years younger when they reached these landmarks. The new study highlights some key differences between childhood- and adult-onset MS. The childhood-onset patients are more likely to be girls and more likely to have an initial exacerbating-remitting course. Although they are slower to develop irreversible disability, patients with childhood-onset MS reach this stage at a younger age than adult-onset patients (N Engl J Med 2007; 356: 2603).

Comments: This is an important study since it talks about key differences in childhood onset MS versus adult onset MS. There is a need to find better treatment modalities in a childhood onset MS.

❑ Body fatness, BMI and skin fold thickness

When assessing body fatness in children and adolescents, skinfold measurements do not add any information beyond that provided by body mass index (BMI) when that index exceeds the 95th percentile. Investigators assessed the sensitivity and specificity of 3 measures for classifying body fatness–BMI-for-age, triceps skinfold thickness, and subscapular skinfold thickness–among 1,196 healthy children and adolescents aged 5 to 18 years. The children underwent dual-energy x-ray absorptiometry (DXA) to assess the percentage of body fat as the reference standard. When BMI-for-age was at least 95th percentile, adding either triceps skinfold thickness or subscapular skinfold thickness did not improve identification. In contrast, when BMI-for-age was at least 85th percentile, adding either triceps skinfold thickness or subscapular skinfold thickness improved the specificity of identification. The findings suggest that skinfold measurements provide addition information on excess body fat in this age group only when BMI-for-age lies between the 85th and 95th percentiles, the researchers assert.(Pediatrics 2007; 119: e1306)

Comments: If you are really overweight then skin fold thickness is not really important.

❑ Infant swimming and asthma

Children who take part in swimming programs as infants have higher risks of asthma and bronchitis. Investigators collected serum samples from 341 schoolchildren aged 10 to 13 years, 13% of whom had participated in infant swimming programs. In addition, they assessed the presence of respiratory conditions. The infant swimming group had evidence of Clara cell damage and altered permeability of lung epithelium. The infant swimming group also had significantly elevated odds of chest tightness, exercised-induced bronchoconstriction, physician-diagnosed asthma or exercise-induced bronchoconstriction, and recurrent bronchitis. The data suggest that infant swimming practice in chlorinated indoor swimming pools is associated with airways changes that, along with other factors, seem to predispose children to the development of asthma and recurrent bronchitis, the researchers opine. They recommend research to clarify the effects of chlorination products on the infant respiratory tract. (Pediatrics 2007; 119: 1095)

Comments: While swimming is supposed to be the best exercise for asthmatics, this study seems to suggest that chlorination may adversely impact an infant while swimming and lead to higher chances of childhood asthma.

❑ Computers can reduce caesarian sections!

Computer-based decision aids can help to inform the choice of delivery options for pregnant women with a previous cesarean section–and may result in an increase in vaginal delivery rates for patients receiving a decision analysis program. The randomized trial included 724 pregnant women with a previous lower-segment cesarean section and expected term delivery seen at 4 UK maternity units. Two groups received computer-based decision aids. One aid was an information program presenting descriptions and probabilities of clinical outcomes associated with planned vaginal delivery, elective cesarean section, and planned cesarean section. The second was a decision analysis tool, in which utility assessments made by the mother were combined with data on probabilities of clinical outcomes to yield a recommended mode of delivery. Controls received standard obstetric and midwife care. Both decision aids were associated with reduced decisional conflict. The decision analysis group had a 37% rate of vaginal delivery, compared with 30% in the usual-care group (adjusted odds ratio, 1.42). There was no significant increase in vaginal deliveries among women assigned to the information program. In the United Kingdom and other countries, cesarean section rates have increased dramatically. Women with previous cesarean sections account for much of the increase and for much of the variation between institutions. The computer-based decision aids evaluated in this study can reduce decisional conflict and anxiety while increasing knowledge for women with previous cesarean section. Such decision aids could be made widely available via the Internet, the investigators suggest. (BMJ 2007; 334: 1305)

***Comments*:** The decision analysis program appears to increase the rate of vaginal delivery, and might be a useful part of efforts to reduce cesarean section rates, given the high incidences of cesarean sections in India.

❑ Treating leishmaniasis – Paramomycin works as well as amphotericin B

Injectable paromomycin is an effective alternative to amphotericin B for the treatment of visceral leishmaniasis, according to a study from India published in the June 21 issue of *The New England Journal of Medicine.* The randomized noninferiority trial included 667 patients, aged 5 to 55 years, with visceral leishmaniasis seen at 4 Indian treatment centers. All patients were HIV-negative and had parasitologic confirmation of the diagnosis. Five hundred two patients received the aminoglycoside antibiotic paromomycin, 11 mg/kg intramuscularly for 21 days. The remaining 165 patients received standard treatment with amphotericin B: 1 mg/kg intravenously every other day for 30 days. Final cure rates were 94.6% with paromomycin and 98.8% with amphotericin B. Adverse events occurred in 6% of patients receiving paromomycin versus 2% of those receiving amphotericin B. Transient aspartate aminotransferase elevation, reversible ototoxicity, and injection site pain were more common with injectable paromomycin. Amphotericin B was associated with higher rates of nephrotoxicity, fever, rigors, and vomiting. The new results suggest comparable results with paromomycin and amphotericin B in Indian patients with visceral leishmaniasis. This drug, which is manufactured in India, may offer several advantages in the treatment of visceral leishmaniasis. It is less expensive than amphotericin B, permits a shorter duration of treatment, and has good safety and efficacy in children and in patients who do not respond to initial treatment. (N Engl J Med 2007; 356: 2571)

***Comments*:** In leishmaniasis infested regions of eastern India, this study would be useful in giving an alternative cheaper treatment option to thousands of poor patients

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