

Lus pour vous! Für Sie gelesen!

Reflux of gastric juice and glue ear in children

Tasker A, Dettmar PW, Panetti M, Koufman JA, Birchall JP, Pearson JP. *The Lancet* 2002; 359 (9333): 493

Otitis media with effusion (glue ear) is the most frequent cause of deafness in children. We investigated the role of gastric juice reflux in this disease. We measured pepsin concentrations in middle ear effusions from children using ELISA and enzyme activity assays. 45 (83%) of 54 effusions contained pepsin/pepsinogen at concentrations of up to 1000-fold greater than those in serum. Our data suggest that reflux of gastric juice could be a major cause of glue ear in children.

Commentaire

pHmétrie pour toutes les otites récidivantes? Plus utile que le dosage des IgG2 et IgG4 d'il y a quelques années? rs

Contacts with varicella or with children and protection against herpes zoster in adults: a case-control study

Thomas SL, Wheeler JG, Hall AJ. *The Lancet* 2002; 360 (9334): 678–82

Background: Whether exogenous exposure to varicella-zoster-virus protects individuals with latent varicella-zoster virus infection against herpes zoster by boosting

immunity is not known. To test the hypothesis that contacts with children increase exposure to varicella-zoster virus and protect latently infected adults against zoster, we did a case-control study in south London, UK.

Methods: From 22 general practices, we identified patients with recently diagnosed zoster, and control individuals with no history of zoster, matched to patients by age, sex, and practice. Participants were asked about contacts with people with varicella or zoster in the past 10 years, and social and occupational contacts with children as proxies for varicella contacts. Odds ratios were estimated with conditional logistic regression.

Findings: Data from 244 patients and 485 controls were analysed. On multivariable analysis, protection associated with contacts with a few children in the household or via childcare seemed to be largely mediated by increased access to children outside the household. Social contacts with many children outside the household and occupational contacts with ill children were associated with graded protection against zoster, with less than a fifth the risk in the most heavily exposed groups compared with the least exposed. The strength of protection diminished after controlling for known varicella contacts; the latter remained significantly protective (odds ratio 0.29 [95% CI 0.10–0.84] for those with five contacts or more).

Interpretation: Re-exposure to varicella-zoster virus via contact with children seems to protect latently infected individuals against zoster. Reduction of childhood varicella by vaccination might lead to increased incidence of adult zoster. Vacci-

nation of the elderly (if effective) should be considered in countries with childhood varicella vaccination programmes.

Commentaire

Le contact répété avec le virus de la varicelle semble protéger les personnes âgées contre l'apparition d'un zona. Cette étude rejoint les conclusions de Gershon et coll.¹⁾ qui avaient constaté un risque moindre de zona et un effet booster mesurable chez les enfants leucémiques vaccinés et exposés à la varicelle.

Certains pays, les Etats Unis et le Japon notamment, ont introduit la vaccination contre la varicelle et certains pays européens en discutent l'opportunité.

Lire l'article de B. Vaudaux et C.-A Siegrist dans ce numéro de Paediatrica. rs

Référence

- 1) Gershon DH, LaRussa P, Steinberg S, et al. The protective effect of immunologic boosting against zoster: an analysis in leukemic children who were vaccinated against chickenpox. *J Infect Dis* 1996; 173: 450–473.

Treatment of Migraine

Letter to the Editor.

N Engl J Med 2002; 347: 764

Commentaire

Dans un commentaire à propos de l'article sur le traitement de la migraine¹⁾, A. Werner, Michigan State University, rappelle qu'un état de sevrage à la caféine peut provoquer des migraines chez les personnes consommant régulièrement cette substance et que la quantité de caféine consommée journalièrement est souvent sous-estimée. rs

Teneur en caféine de différentes boissons ²⁾ :		
Café (espresso)	tasse de 35 ml	20–30 mg
Thé (fort)	tasse de 175 ml	60–100 mg
Coca	canette 33 cl	45–65 mg
Ice tea Elvis Classic	verre de 2 dl	3,6 mg
Ice tea Lipton	verre de 2 dl	3,8 mg
Nestea lemon	verre de 2 dl	5,6 mg
Ice Tea citron Migros	verre de 2 dl	8,6 mg
Ice Tea classique COOP	verre de 2 dl	9,6 mg
Tea House Earl Grey Migros	verre de 2 dl	17,6 mg

Références

- 1) Goadsby PJ, Lipton RB, Ferrari MD. Migraine – current understanding and treatment. *N Engl J Med* 2002; 346: 257–70.
- 2) B. Guignard, Bon à Savoir 2002; 8: 10–11.

Drug therapy: Analgesics for the treatment of pain in children

Review Article

Charles B. Berde, Navil F. Sethna

N. Engl. J. Med 2002; 347: 1094–1103

Commentaire

Les auteurs passent en revue la douleur et son traitement chez l'enfant; les aspects, en fonction de l'âge et du développement de l'enfant, de la nociception, de l'appréciation de la douleur, de la pharmacocynétique; l'utilisation des différents analgésiques, avec un accent particulier sur les opiacés; l'approche de la douleur chronique et de la douleur chez l'enfant souffrant d'un cancer; enfin un petit chapitre dédié à l'anesthésie locale.

Et surtout, les auteurs nous fournissent une liste très complète (129 titres) de références bibliographiques. rs

Comparative efficacy of insect repellents against mosquito bites

Fradin MS, Day JF.

N Engl J Med 2002; 347: 13–18

Background: The worldwide threat of arthropod-transmitted diseases, with their associated morbidity and mortality, underscores the need for effective insect repellents. Multiple chemical, botanical, and «alternative» repellent products are marketed to consumers. We sought to determine which products available in the Uni-

ted States provide reliable and prolonged complete protection from mosquito bites. **Methods:** We conducted studies involving 15 volunteers to test the relative efficacy of seven botanical insect repellents; four products containing N,N-diethyl-m-toluamide, now called N,N-diethyl-3-methylbenzamide (DEET); a repellent containing IR3535 (ethyl butylacetylaminopropionate); three repellent-impregnated wristbands; and a moisturizer that is commonly claimed to have repellent effects. These products were tested in a controlled laboratory environment in which the species of the mosquitoes, their age, their degree of hunger, the humidity, the temperature, and the light-dark cycle were all kept constant. **Results:** DEET-based products provided complete protection for the longest duration. Higher concentrations of DEET provided longer-lasting protection. A formulation containing 23.8 percent DEET had a

mean complete-protection time of 301.5 minutes. A soybean-oil-based repellent protected against mosquito bites for an average of 94.6 minutes. The IR3535-based repellent protected for an average of 22.9 minutes. All other botanical repellents we tested provided protection for a mean duration of less than 20 minutes. Repellent-impregnated wristbands offered no protection.

Conclusions: Currently available non-DEET repellents do not provide protection for durations similar to those of DEET-based repellents and cannot be relied on to provide prolonged protection in environments where mosquito-borne diseases are a substantial threat.

Commentaire

Un travail de fourmis pour des piqûres de moustiques!

Est-il surprenant que pour vaincre des stratégies d'adaptation vieilles de millions d'années, la citronnelle, même concentrée, soit insuffisante? Et pas de surprise non plus en ce qui concerne la chimie: plus c'est concentré, plus c'est efficace!

Concrètement: la seule substance testée qui s'est avérée efficace, est le N,N-diéthyl-3-méthylbenzamide (DEET), avec une nette relation dose à effet. Seuls les produits avec une concentration de 20% ou plus dépassent les 3 heures d'effet repellent (234 ± 31.8 (180–235) minutes).

Quelques produits sur le marché suisse:

Antibrumm forte:	28% DEET
Parapic spray:	18% DEET
Kik activ:	20% DEET
Exopic forte:	20% DEET

Long-term relation between breastfeeding and development of atopy and asthma in children and young adults: a longitudinal study

Sears MR, Greene JM, Willan AR, Taylor DR, Flannery EM, Cowan JO, Herbison GP, Poulton R.

The Lancet 2002; 360 (9334): 901–7

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.

Commentaire

Des certitudes!

Durant ces dernières décennies, nous avons acquis la certitude que des facteurs environnementaux, intervenant durant la petite enfance, jouent un rôle important dans l'apparition de maladies (allergies notamment) de l'enfant, de l'adolescent et de l'adulte.

L'allaitement, respectivement l'introduction d'allergènes alimentaires sont de tels facteurs environnementaux. Le stade de développement (immunologique) durant lequel ils interviennent, semble être crucial¹⁾. Les conclusions varient selon la durée de l'observation; les constats à 2 ans ne sont pas les mêmes qu'à 13 ans ou à l'âge adulte. C'est la raison majeure qui explique la contradiction entre études constatant un effet protecteur de l'allaitement²⁻⁷⁾ et les études selon lesquelles, au contraire, l'allaitement augmente le risque d'allergies et d'asthme⁸⁻¹²⁾.

L'effet du lait maternel pourrait dépendre du taux d'IgE maternel¹²⁾. L'allaitement influence la flore intestinale¹³⁻¹⁵⁾ qui à son tour est influencée par l'hygiène¹⁶⁻¹⁸⁾.

Malcom Sears et coll. ont suivi 1037 enfants et les ont examinés à l'âge de 3, 5, 7, 9, 11, 13, 15, 18, 21 et 26 ans.

L'examen clinique a été complété par un questionnaire, mesure des fonctions pulmonaires (spirométrie et test de provocation) ainsi que par des tests cutanés.

Leur conclusion, en texte original: «*Our conclusion provide substantial evidence against our initial hypothesis that breast-feeding is protective against atopy and asthma. By contrast, breast-feeding for 4 weeks or longer increased the likelihood of skin test responses to common allergens at age 13 years, and more than doubled the risk of diagnosed asthma in mid-childhood, with effects persisting into adulthood.*»

Aucun mécanisme plausible ne permet actuellement d'expliquer comment l'allaitement peut augmenter chez l'enfant le risque de développer un asthme.

Il n'y a pas de doute, nous devons continuer à promouvoir l'allaitement, mais nous ne pouvons plus, en bonne conscience, avancer l'argument de la prévention des maladies allergiques et de l'asthme. Alors il faudra changer ou du moins nuancer nos arguments. Nous avons tous présents les regards surpris, voire incrédules de parents lorsqu'en présence de leur 3^{ème} enfant, pour la 3^{ème} fois nos certitudes d'hier n'étaient plus celles du lendemain. C'est un art, de travailler dans l'incertitude! rs

Références

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A population-based study of measles, mumps, and rubella vaccination and autism.

Madsen KM, Hviid A, Vestergaard M, Schendel D, Wohlfahrt J, Thorsen P, Olsen J, Melbye M.
N Engl J Med 2002; 347: 1477-82

Background: It has been suggested that vaccination against measles, mumps, and rubella (MMR) is a cause of autism.

Methods: We conducted a retrospective cohort study of all children born in Denmark from January 1991 through December 1998. The cohort was selected on the basis of data from the Danish Civil Registration System, which assigns a unique identification number to every live-born infant and new resident in Denmark. MMR-vaccination status was obtained from the Danish National Board of Health. Information on the children's autism status was obtained from the Danish Psychiatric Central Register, which contains information on all diagnoses received by patients in psychiatric hospitals and outpatient clinics in Denmark. We obtained information on potential confounders from the Danish Medical Birth Registry, the National Hospital Registry, and Statistics Denmark.

Results: Of the 537,303 children in the cohort (representing 2,129,864 person-years), 440,655 (82.0 percent) had received the MMR vaccine. We identified 316 children with a diagnosis of autistic disorder and 422 with a diagnosis of other autistic-spectrum disorders. After adjustment for potential confounders, the relative risk of autistic disorder in the group of vaccinated children, as compared with the

unvaccinated group, was 0.92 (95 percent confidence interval, 0.68 to 1.24), and the relative risk of another autistic-spectrum disorder was 0.83 (95 percent confidence interval, 0.65 to 1.07). There was no association between the age at the time of vaccination, the time since vaccination, or the date of vaccination and the development of autistic disorder.

Conclusions: This study provides strong evidence against the hypothesis that MMR vaccination causes autism.

Commentaire

Cette étude de population, basée sur un très grand échantillon, confirme que la vaccination rougeole-oreillon-rubéole n'est pas associée à une augmentation de l'autisme infantile chez les enfants vaccinés. Voir également l'article de C.-A. Siegrist sur ce même thème dans ce numéro de Paediatrica. rt