

No absolutes

Daniel Hackam¹ recently summarized the results of a primary prevention trial with lipid-lowering therapy.² However, these results suffer from a limitation of many reports of randomized controlled trials, in that the benefit is expressed only in terms of the relative risk reduction, which makes it difficult to estimate the total impact of the intervention. Relative risk reduction does not take into account primary and secondary end points, which are expressed by the absolute risk reduction.

A review of the data from the original paper² indicates that the absolute risk reduction for the primary end point of nonfatal myocardial infarction and fatal coronary artery disease was 1.1%, much more modest than the 36% relative risk reduction that was reported. The number needed to treat (NNT) derived from this absolute risk reduction is 90, which is comparable to the NNT for other prevention trials.³

Presenting absolute as well as relative risk reduction in reports of preventive drug therapy would give practitioners (and their patients) realistic estimates of the potential benefit of specific interventions.

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References

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[The author responds:]

Anthony Kerrigan states that relative risk reduction does not take into account primary and secondary end points (which are expressed by absolute risk reduction) and that presenting absolute risk reductions would give practitioners more realistic estimates of the benefits of specific interventions. Although this viewpoint has been frequently expressed in letters to the editor and editorials, its premise is flawed.

Patients enrolled in clinical trials are frequently at lower risk of important adverse outcomes than the patients commonly encountered in actual practice, many of whom have risk-increasing comorbidities that tend to exclude them from such studies. Therefore, the absolute risk reduction reported in a pertinent clinical trial cannot readily be applied to such patients. The obvious solution is to calculate a new absolute risk reduction (and a new number needed to treat) based on the relative risk reduction reported in the clinical trial, as applied to the patient's estimated baseline, pretreatment risk.¹ Fortunately, the relative risk reductions derived from cardiovascular trials tend to be relatively impervious to the baseline risk of the patient. Therefore, as implied by my summary² of the Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT),³ it is entirely appropriate for practitioners to apply the relative, not the absolute, risk reduction from such clinical trials to the patients they see.

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Misdiagnosis of abuse

W. James King and colleagues¹ report that bruising was noted on examination for 46% of the children in their study of shaken baby syndrome in Canada. Such a high proportion warrants attention, but we must ensure that the diagnosis is correct.

A few years ago, a mother brought to my office her 3½-month-old child, who had ecchymosis of the left cheek and left pinna. The mother reported 3 separate episodes of bruising before the presenting episode. She suspected abuse by a babysitter, and the case was reported to the appropriate authorities. The child was investigated for bleeding disorders, but none were found. On the basis of the results of a pediatric examination arranged by social services, the child was removed from the mother's care. Subsequent medical care was provided by the family physician of the child's foster parent.

I next saw the child at 10 months of age during a day visit to the birth mother. The presenting problem at that time was described as recurrent impetigo of the left pinna. Infected eczema of the left pinna had been diagnosed on several occasions in the intervening period, and a dermatologist had confirmed the diagnosis of impetigo. This story sounded odd and led me to speculate that the child might have a herpes simplex infection. The dermatologist had taken a sample for culture, and a phone call to the local laboratory confirmed that the viral swab was growing herpes simplex I. In view of this information, I suspected that the episodes of ecchymosis of the left pinna seen in the first few months of life were actually the result of the original herpes infection.

After letters and phone calls to the Ministry of Children and Families, the child was finally returned to the birth mother in the second year of life. The lesson to be learned is that in our haste to ensure the safety, welfare and protection of our pediatric patients, we should remember that all that glitters is not gold.

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1. King WJ, MacKay M, Sirnick A, with the Canadian Shaken Baby Study Group. Shaken baby syndrome in Canada: clinical characteristics and outcomes of hospital cases. *CMAJ* 2003;168(2):155-9.

[Members of the Canadian Shaken Baby Study Group respond:]

Our study documented the physical findings of a large group of children who had suffered a severe shaking injury.¹ As noted in the article, we did not identify a control group and therefore were unable to compare the rate of bruising within our population with that of children who had not been subjected to a severe shaking injury. The intention of the bruising report was to highlight the large number of children who, despite a severe injury, had no external signs of injury and presented with subtle clinical findings.

Health care professionals are mandated by law to report suspected cases of child abuse. However, such a report is not a diagnosis or an accusation. Additional investigation by a child welfare agency will help to determine whether abuse or neglect is a concern. More reports of suspected abuse should be investigated than the number of cases of actual abuse that are found, just as more lumps will be investigated than turn out to be cancer and more coughs than turn out to be pneumonia. When abuse is suspected, evaluation by a child abuse and neglect team, along with a careful pediatric examination, rarely results in misdiagnosis (in less than 1% of cases).² In contrast, early studies of abused children discharged to their parents with-

out any intervention indicated that 25% are seriously reinjured and 5% are subsequently killed.³

Because of the prevalence of maltreatment,⁴ it is important that physicians have the skills to recognize its signs and symptoms. Physicians should carefully evaluate all bruising in infants younger than 9 months of age and those who are not yet beginning to ambulate.⁵ In children of any age, bruises located in atypical areas, such as the trunk, hands or buttocks, are also of concern. Unfortunately, our residency programs may not provide the necessary training — even pediatric residents have little exposure to child protection issues during their clinical training.⁶ A child welfare investigation may be a difficult experience for all involved and, as shown by our study² and others,⁷ the consequences for the child are potentially grave if there is a failure to refer early and evaluate appropriately.

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Correction

John Savage was predeceased by his wife, Margaret. Incorrect information appeared in a recent death notice.¹

Reference

1. Deaths. *CMAJ* 2003;169(5):528.

Nouveau mécanisme de présentation des lettres

Le site amélioré des cyberlettres du JAMC est désormais le portail de réception de tous les textes destinés à la chronique Lettres. Pour rédiger une cyberlettre, consultez un article sur le site www.jamc.ca et cliquez ensuite sur le lien «Lettres électroniques : répondre à cet article», dans la boîte en haut à droite de l'article. Toutes les cyberlettres seront étudiées pour une éventuelle publication dans le journal imprimé.

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