

PRACTICE OBSERVED

Practice Research

Outcome of respiratory illness occurring in the first year of life

C J WATKINS, Y SITTAMPALAM, J BARTHOLOMEW

Abstract

This paper describes the outcome of respiratory illness presented by a birth cohort of infants in the first year of life who were born to mothers in two inner London group general practices...

Introduction

This paper is the sequel to the paper that described the pattern of respiratory illness in children in the first year of life presenting to general practitioners and the influence of seasonal factors and social and family health variables...

Department of General Practice, United Medical and Dental Schools of Guy's and St Thomas's Hospitals, 10 Remington Road, London SE11 6SP

The aim was to find a way to identify groups of children at risk of subsequent chronic lung disease on whom preventive efforts could be concentrated.

Method

The methods were described in detail in the preceding paper. The study population consisted of children who were born between 1 June 1975 and 31 May 1978 to mothers who were registered with two adjacent group general practices that provide care for a total of 17 000 patients in the inner London Borough of Lambeth...

At the child's first birthday a questionnaire was administered to the mother by a trained interviewer. Information was thus obtained about the child's health during the first year of life, the health of the mother and father, and other social variables that were thought to be important in determining the frequency of respiratory illness.

TABLE IV—Relation between peak expiratory flow rate and parent's occupation, sex, and frequency of lower respiratory illness

Table with 4 columns: Parent's occupation, No lower respiratory illness, Lower respiratory illness (once only), Two or more episodes of lower respiratory illness, and Total. Rows include Non-manual (Men, Women) and Manual (Men, Women) categories.

\*Corrected for child's standing height only.

with other variables that are known to be associated with respiratory morbidity.

In a previous study of similar design the relative influence of several personal and family factors on peak expiratory flow at age 5 was estimated. Information was collected from mothers about their recall of their children's experience of respiratory illness for each of the first four years of life.

The results of our study, based on consultation data collected during the first year of life only, show that with the exception of boys whose fathers are in non-manual occupations the children who presented with two or more episodes of lower respiratory illness have an appreciably impaired peak expiratory flow compared with those with no such history.

The high peak flow values of boys whose fathers are in non-manual occupations, this study confirms an association between recurrent lower respiratory illness in infancy and a significantly diminished peak expiratory flow at the age of 5.

With the exception of boys whose fathers are in non-manual occupations, this study confirms an association between recurrent lower respiratory illness in infancy and a significantly diminished peak expiratory flow at the age of 5.

100 YEARS AGO

An outbreak of small-pox has occurred among a gypsy community in the neighbourhood of Winchester. One death out of several cases is known to have already occurred...

corresponding with the time of year when there is a high prevalence of respiratory virus infection. Another hypothesis is that lower respiratory illness in infancy and diminished peak expiratory flow at the age of 5 are both manifestations of the same physiological defect...

Clearly, the question of a physiological defect in these children needs to be examined further. The results of this study suggest a way to identify a group of children who are at an increased risk of having subsequent lower ventilatory function from the general practice records.

We thank the patients and the doctors of the Lambeth Road Group Practice and the Lion Road Group Practice for providing the data for this study, to Miss Mary Evans and Mr George Iwanicki for their help in data collection and analysis, Professor W. Holland, Professor D. Morelli, and Professor J. Cameron for their expert guidance on the design of this study, and Mrs Carmel Stephenson, who prepared the many drafts of this paper.

References

- 1 Watkins CJ, Sittampalam Y, Morelli D, Linder SB, Linton B. Patterns of respiratory illness in the first year of life. Br Med J 1986;293:794-6.

Accepted 29 June 1986

would obviously not be by any means sufficient. It is to be hoped that the local authorities have succeeded in promoting vaccination and revaccination among the gypsies, in isolating, as far as possible, the infected persons, in carrying out or securing efficient measures of disinfection, and in enforcing the provisions of Section 126 of the Public Health Act, 1875...

The data were analysed using the regression techniques of the statistical package GLIM. These techniques allow the effects of several factors to be examined simultaneously.

Results

Four hundred and four children with complete consultation and first year questionnaire data were available for study. Of these, 99 (25%) could not be contacted at the age of 5, either because they were not traceable through the Central Register of the National Health Service or because they had moved too far away for the fieldworker to visit.

TABLE I—Characteristics of children who provided data for analysis

Table with 4 columns: Features of respiratory illness, No. available for follow-up (n=404), No. who had no follow-up (n=102), No. who failed to provide valid data (n=8), No. who provided complete data for analysis (n=296).

PEF = peak expiratory flow

first and fifth birthdays. Table I shows the characteristics of those who provided follow-up data together with those who failed to follow-up significantly more girls than boys failed to understand the instructions on the use of the peak flow meter...

The aim of this study was to identify factors that appeared to affect peak expiratory flow adversely. Peak expiratory flow varied according to the child's height and age. The child's height was not, however, related to the frequency of episodes of lower respiratory illness.

Frequency and type of respiratory illness—Table II shows the frequency and type of respiratory illness related to peak expiratory flow at age 5. Children who had a history of upper respiratory tract infection in the first year of life had a higher mean peak expiratory flow than those whose fathers were in manual occupations (p<0.05).

Sex and social and environmental factors—Apart from the child's experience of respiratory illness we looked at other factors which might explain the variance of peak expiratory flow in our cohort. Table III shows the relation of each of these main factors to peak expiratory flow, corrected only for the child's height.

Sex and social class. Table IV shows the relation between peak expiratory flow by sex, occupation of parent, and frequency of episodes of lower respiratory illness experience. Boys whose fathers are in non-manual occupations have a higher level of peak expiratory flow with increasing frequency of experience of lower respiratory illness, whereas the reverse is true of boys whose fathers are in manual occupations and girls of either social class group.

TABLE III—Relation between peak expiratory flow at age 5 years and the experience of respiratory illness in a birth cohort of 266 children

Table with 4 columns: Experience of respiratory illness, No. of children, Mean (SD) peak expiratory flow (l/min), Significance level.

\*Corrected for child's standing height.

TABLE IV—Relation between peak expiratory flow at age 5 years and health and personal variables in a birth cohort of 266 children

Table with 4 columns: Variable, No., Mean (SD) peak expiratory flow (l/min), Significance level.

\*Each child is included only on information about the child's father was available (11 corrected for child's standing height).

Doctors as nutrition educators? Part I

MARGARET B CLARK, ELIZABETH M EVANS, MARGARET B HAMILTON-SMITH

How well qualified are you to educate your patients about nutrition? Try this quiz (the first of four quizzes) on your nutritional knowledge.

- 1. How dangerous is it for your patients to eat foods including E300? 2. What is the minimum recommended fluid intake a day for an adult? 3. What is the National Advisory Committee on Nutrition Education recommendation for total fat content of the diet for the general population?

Bath District Health Authority MARGARET B CLARK, DPH, SRD, district nutrition and dietetic manager

Swindon Health Authority ELIZABETH M EVANS, DPH, SRD, senior dietitian

Wincanton Health Authority MARGARET B HAMILTON-SMITH, BSc, SRD, district nutrition and dietetic manager

Correspondence to Mrs M B Hamilton-Smith, Royal Hampshire County Hospital, Romsey Road, Winchester SO22 5DG.

- 7. Which food is a good source of protein, B vitamins, and iron, is low in cholesterol, and is relatively cheap? 8. Name three sources of iron for non-meat eaters.

- 11. Which sugar has the highest energy value (calories)? a) sucrose b) dextrose monohydrate c) fructose d) maltodextrin e) lactose

- 12. Which of these margarines is high in polyunsaturated fatty acids? a) Blueband b) Krusa c) Flora d) Sumner County e) Vitality f) Gola g) Outline h) Clover i) Stork SB

See below for the answers

Accepted 21 June 1986

100 YEARS AGO

The Secretary of State for War, prompted by a desire to promote the health of the workmen in the Government factories, as well as the good of the service, has issued an order that all overtime work at Woolwich Arsenal and other Government factories is to be discontinued, and the workmen, who have been for the most part employed four extra hours daily for the past twelve months, revert to the ordinary average of nine hours a day.

matches between scratch teams, and are due to some of the players not knowing the rules. But one of the accidents which occurred on Saturday happened during a county match between Sussex and Hampshire and Dorset. Medical students have, in the past, shown a curious love for this rough pastime, but there are not wanting signs that its popularity is declining among the better class of students, and that its place will soon be taken by more intelligent and manly ways of spending Saturday afternoon.

Doctors as nutrition educators? Part I

Answers to quiz above

- 1. E300 is not dangerous. 2. 2 litres. 3. 30%. 4. 20%. 5. 10%. 6. 10%. 7. Chicken. 8. Spinach, lentils, and pulses. 9. 10%. 10. 10%. 11. Sucrose. 12. Blueband.