Table 1—*Exposure to, recognition of, and infection with orf in mid-Wales farming community*

	No (%) of respondents giving positive replies
All respondents (n = 251)	
Would you recognise orf in a sheep?	237 (94)
Have you ever handled sheep with orf?	224 (89)
Would you recognise orf if you caught it yourself?	196 (78)
Have you ever had orf?	73 (29)
Have any other members of your household had orf?	86 (34)
Would you be prepared to take part in further research on the treatment of orf?	205 (82)
Patients who had had orf (n = 73)	
How often have you had orf?	
Once	58 (80)
Twice	10 (14)
More than twice	5 (7)
What was the length of time between attacks?	
1 Year	3 (20)
2 Years	6 (40)
3 Years	2 (13)
>3 Years	4 (27)
How old were you when you had orf?	
Teenager	21 (29)
In 20s	18 (25)
In 30s	14 (19)
In 40s	15 (21)
In 50s	4 (5)
In 60s	1 (1)
What time of year did you have orf?	
Spring	38 (52)
Summer	22 (30)
Autumn	10 (14)
Winter	3 (4)
Did you consult a doctor?	56 (77)

life, which is in keeping with starting work on the family farm. Most cases (60/73 (82%)) occurred in spring or summer. In addition, I identified 58 separate episodes of orf infection from general practice records. Thirty four (59%) occurred in April, May, and June—19 (33%) in May alone (table 1).

Sixteen respondents (22%) reported an accompanying red blotchy rash; erythema multiforme, toxic erythema, or allergic reaction was recorded in the general practice notes in nine cases (12%). Eight respondents (11%) indicated that they had blisters on their arms, body, face, or mouth when they had had orf. Widespread vesicular eruption was confirmed from the records in only three cases (4%). All of these had preceding erythema multiforme. Of the 24 people (33%) whose work was affected, four reported problems for less than a week, 11 for one to two weeks, and nine for more than two weeks. Eleven patients (15%) had time off work: three for less than one week, three for one to two weeks, and five for more than two weeks.

There were no reports of human to human spread.

Comment

Orf is common in flocks in mid-Wales. Most people who work with sheep can recognise both animal and human infection, but self diagnosis and lack of effective treatment could explain why almost a quarter of patients with orf chose not to consult a doctor. One episode of orf may[3] or may not[4] confer life long immunity. Although a fifth of my respondents reported two or more attacks, infection declined with increasing age. The seasonal variation correlated with the end of the lambing season.

The mechanism of the papulovesicular eruption is not understood, but such a dramatic rash is unlikely to be ignored by both patient and doctor. The hands are most commonly infected (occasionally the face), which explains why patients' jobs are affected and they lose time at work. Most attacks occur at the busiest time of the farming year, and illness is clinically significant. As there is no effective treatment, further evaluation of simple preventive measures such as wearing gloves and isolation of infected sheep needs to be carried out, although costs and practical considerations may prove difficult to overcome.

I thank Jane Jones of Rhayader Surgery for her help in completing this study, Trish Buchan for her help with the questionnaire and interpretation of results, and Dr Hywel C Williams for critical comments on the manuscript.

Funding: Montgomeryshire Medical Society and Powys NHS Trust.

Conflict of interest: None.

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(Accepted 4 March 1996)

Childhood leukaemia and intramuscular vitamin K: findings from a case-control study

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BMJ 1996;313:204–5

Exposures before birth and in early life have long been thought to be important determinants of cancer in children. Anxiety about the neonatal administration of vitamin K was raised in 1992, when Golding *et al* linked intramuscular, but not oral, vitamin K with childhood malignancy.[1] Of particular concern was the 2.65-fold increased risk of leukaemia.[1] Much debate ensued, and, although Golding's findings have not been confirmed elsewhere,[2-4] much public anxiety remains. We present the findings relating to vitamin K from a case-control study designed to investigate associations between leukaemia and prenatal and neonatal exposures.

Subjects, methods, and results

Cases comprise children (0-14 years) diagnosed with leukaemia whose mothers' obstetric notes are stored at the John Radcliffe Hospital, Oxford (born 1951 or later), the Rosie Maternity Hospital, Cambridge (born 1956 or later), and the Royal Berkshire Hospital, Reading (born 1969 or later). Of the eligible cases identified by the Childhood Cancer Research Group,[5] records covering delivery were found for 90% and obstetric notes for 85%. Two controls per case (matched on sex, hospital, and year and month of birth) were randomly selected from registers of all births held at the relevant hospitals. Multiple pregnancies, children with chromosomal anomalies, and babies who died before discharge were omitted. Delivery, obstetric, and neonatal records were abstracted by midwives using specially designed structured forms. Results are given for acute lymphoblastic leukaemia alone and all leukaemias combined. Findings are presented in two ways: firstly, by what was written in the notes (deriving route from hospital practice when it was not recorded); and, secondly, by what could be imputed from hospital policy. To ensure comparability with the results of

Table 1—*Vitamin K status of cases and controls assessed according to what was recorded in hospital notes and what was imputed from hospital policy*

	Cases	Controls	Odds ratio (95% confidence interval)† Unadjusted	Odds ratio (95% confidence interval)† Adjusted‡
Acute lymphoblastic leukaemia	**109**	**218**		
Obstetric/neonatal notes:				
No written record of vitamin K	32	70		
Recorded as not given	1	2		
Given orally	4	4		
Given intramuscularly	72	142	1.1 (0.6 to 2.0)	1.0 (0.5 to 1.9)
Imputed from hospital policy*:				
Not given	20	41		
Oral preparation	4	6		
Intramuscular	85	171	0.9 (0.4 to 2.2)	0.8 (0.3 to 2.0)
All leukaemias	**132**	**264**		
Obstetric/neonatal notes				
No written record of vitamin K	41	93		
Recorded as not given	1	2		
Given orally	4	6		
Given intramuscularly	86	163	1.3 (0.7 to 2.3)	1.2 (0.7 to 2.3)
Imputed from hospital policy*:				
Not given	28	60		
Oral preparation	4	8		
Intramuscular	100	196	1.2 (0.6 to 2.6)	1.1 (0.5 to 2.6)

*A yes or no recorded in obstetric notes took priority over imputed hospital policy.
†Intramuscular vitamin K versus all other possibilities combined. Odds ratios were estimated using informative matched sets and conditional logistic regression.
‡Adjusted for admission to special care nursery and mode of delivery .

others,[1-4] we present odds ratios for intramuscular vitamin K versus all other possibilities combined (none/oral/no record of vitamin K). To take account of potential confounding, we adjusted odds ratios for delivery type and admission to a special care nursery, and these are listed alongside their unadjusted counterparts.

The adjusted odds ratio among those whose medical notes indicated they had received intramuscular vitamin K was 1.0 (95% confidence interval 0.5 to 1.9, based on 45 informative sets) for acute lymphoblastic leukaemia and 1.2 (0.7 to 2.3, 52 informative sets) for all leukaemias (table 1). Imputation resulted in lower risk estimates, but as the calculation was based on fewer informative case-control sets the confidence intervals are wider.

Comment

The retrospective assessment of whether a baby received vitamin K, and by what route, is not straightforward. Information about vitamin K may be found in several places: the mother's obstetric notes, the delivery register, neonatal notes, and nursing cardex. Additionally, hospital policy on vitamin K varies from routine (oral or intramuscular) to a more selective regimen of intramuscular vitamin K for high risk neonates. When vitamin K is given, details are generally recorded at the time of administration, although route is not always stated. Because vitamin K administration cannot always be confirmed from the records available some researchers have imputed information from hospital policy.[1-4] Imputation can be problematic: historical records are rarely available, and current staff are sometimes ill informed about past policies; and on an individual basis it is an act of faith to assume that where no written record is found hospital policy prevailed. For this reason we presented our data in two ways. With either method, our findings do not support the suggestion that the risk of childhood leukaemia is increased in neonates who receive intramuscular vitamin K.

We thank Judith Black, Susie Boon, and Pat Townshend for data collection; the hospital staff who helped trace the records; and Gerald Draper, Richard Doll, and Charles Stiller for comments on a previous draft.

Funding: Imperial Cancer Research Fund.

Conflict of interest: None.

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(Accepted 12 July 1996)

Medical practitioners' knowledge of dysentery treatment in Bangladesh

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BMJ 1996;313:205–6

The irrational use of drugs is common in Bangladesh.[1 2] To assess medical practitioners' knowledge of treatment for dysentery and whether their knowledge is influenced by their training, we interviewed four groups of medical practitioners in Bangladesh and compared the treatment that they recommended with what is advocated by the World Health Organisation.

Subjects, methods, and results

We conducted our study in the capital, Dhaka, and in rural Matlab. In Dhaka we interviewed 136 doctors (46 with postgraduate training and 90 without), 87 drug dispensers, and 50 medical students, and in Matlab we interviewed 150 drug dispensers. All participants were selected randomly, except for the medical students, who were recruited opportunistically.

We presented a simple case to each person: "A 2 year old child has had bloody diarrhoea for three days. What treatment would you recommend?" The correct answer is use of oral rehydration solution and a single antibacterial drug appropriate for treating shigellosis, as recommended by the WHO.[3 4] Appropriate antibacterial drugs are ampicillin, co-trimoxazole, nalidixic acid, and pivmecillinam.

Less than half of the people in each of the four groups recommended the correct treatment (table 1). Fewer drug dispensers recommended correct treatment (8% of urban and 11% of rural dispensers) than did doctors with postgraduate training (44%), medical students (46%), and doctors without postgraduate training (47%). The commonest incorrect recommendations were the use of multiple antibiotics, use of an inappropriate antibiotic, and failing to use oral rehydration solution. Of the 423 people interviewed, 398 recommended the use of at least one antibiotic, and 155 recommended two or more antibiotics. The most commonly recommended combination of antibacterial drugs was metronidazole with ampicillin, co-trimoxazole, or nalidixic acid. Drug dispensers in Matlab were more likely to recommend use of multiple antibiotics or use of metronidazole or furazolidone (two drugs not indicated for treating dysentery in children) and were less likely to recommend oral rehydration solution than were the other groups of medical practitioners.