PAPERS AND SHORT REPORTS

Screening for small for dates fetuses: a controlled trial

J P NEILSON, S P MUNJANJA, C R WHITFIELD

Abstract

In the hope of reducing perinatal risks associated with retardation of intrauterine growth a previously described two stage ultrasound screening schedule was evaluated by a controlled trial in 877 women with low risk single pregnancies. The two stages of ultrasound examination were an assessment of gestational age during early pregnancy followed by measurement of length from crown to rump and area of trunk at between 34 and 36 weeks' gestation. The product of crown to rump length and trunk area was calculated.

The sensitivity of this schedule in identifying in advance 94% of babies who were small for dates at birth, with 90% specificity, and the speed and simplicity of measurement confirmed the accuracy and feasibility of two stage ultrasonography as a screening procedure. The controlled trial did not, however, show any benefit from its routine application in these low risk pregnancies.

Introduction

In reducing the hazards of retardation of fetal growth by planned delivery at the optimal time and in optimal circumstances, antepartum recognition of the small for dates fetus is an essential first step. Factors used to define women at high risk of bearing babies who are small for dates include epidemiological features, certain medical disorders, and previous or current complications in pregnancy; unfortunately, only about half the babies who are small for dates are born to such mothers.[1-3] Although biophysical and biochemical assessment of fetal wellbeing is usually initiated in identified high risk pregnancies, whether or not the fetus is thought to be small for dates, such intensive supervision is not carried out in apparently low risk pregnancies unless and until retardation of fetal growth is suspected clinically. Because, during routine antenatal care, abdominal palpation permits detection of only 30-50% of fetuses that are small for dates[4-6] and tape measurement of fundal heights leaves many such fetuses undetected,[7] an effective and logistically feasible means of routine screening for fetuses that are small for dates appears to be necessary.

Biochemical placental function tests have proved insensitive in detecting retarded fetal growth.[8-10] Alternative suggested methods, including radiographic assessment of fetal fat,[11] estimation of amniotic fluid concentrations of phosphatidyl glycerol,[12] and the "roll-over test,"[13] have not been convincingly shown to be effective screening procedures. Diagnostic ultrasound permits precise measurement of fetal dimensions. With recognition of the brain sparing effect,[14] attention has passed from cephalometry to measurements of the trunk at liver level,[15] which are more effective in detecting fetuses that are small for dates[16-19] and merit evaluation as screening procedures.[20 21]

We have previously reported effective identification of fetuses that are small for dates by a two stage ultrasound examination schedule in 474 mostly unselected patients, achieving a sensitivity of 94% and a specificity of 88%.[22] The first stage examination provided an accurate assessment of gestational age in early pregnancy from which to interpret the product of length from crown to rump and trunk area (CRL $\times$ TA) calculated from measurements made at the second stage of ultrasonography between 34 and 36 weeks' gestation. Because, however, the predictive "cut off" of the product of crown to rump length and trunk area was calculated retrospectively on completion of the study, and although prospective trials have already given good detection rates in twin pregnancies[23 24] and in high risk single pregnancies,[25] the need for a prospective trial in low risk pregnancies remained. We now report an evaluation of the predictive value of crown to rump length $\times$ trunk area in a large series of mothers, in whom there was no reason to expect small for dates babies and in whom no other indication for biophysical or biochemical, or both, monitoring had arisen. In addition, this screening programme was evaluated by a controlled trial to determine the impact of its routine application on both perinatal outcome for small for dates fetuses and obstetric management of pregnancies whether or not associated with retardation of fetal growth.

University Department of Midwifery, Queen Mother's Hospital, Glasgow G3 8SH

J P NEILSON, MRCOG, lecturer
S P MUNJANJA, MRCOG, research registrar
C R WHITFIELD, MD, FRCOG, professor

Correspondence to: Mr J P Neilson.

Methods

Women attending this hospital's antenatal clinic with as yet uncomplicated single pregnancies at between 238 and 255 days' (34 to 36·5 weeks') gestation, as confirmed in every case by first stage ultrasound examination before 24 weeks, were selected from their clinical records and asked to participate. Eight hundred and seventy nine (90%) agreed to do so, though two eventually had their confinements elsewhere. Mothers who had already been identified as being at high risk, including any in whom there had already been some reason to start fetoplacental monitoring or in whom a clinical suspicion that the fetus might be small for dates had been noted at any time, were excluded. The number of subjects was determined by the duration of research funding. From their hospital index numbers, the women were then allocated to one of two groups before undergoing second stage ultrasound examinations for measurement of fetal length from crown to rump (CRL) and trunk area (TA), details of which (and the cut off line for CRL × TA values predicting small for dates babies) have been described previously[22]; a semi-automated electronic device for measuring area and perimeter[26] attached to a static B scanner was used. No selection bias was thought to result from our method of allocation. In 433 patients (reported group) the CRL × TA values were calculated, plotted, and interpreted at once, these findings were recorded in the case notes, and, if values were abnormal, the patient reattended the antenatal clinic within one week; in a few such cases crown to rump length and trunk area were measured again at this reattendance, but further management was otherwise the responsibility of the clinical staff. In the 444 other patients (non-reported group) crown to rump length and trunk area were noted by the research team without calculation of CRL × TA, and the case notes were stamped "not reported." To help management of any complications subsequently arising in the non-reported patients the clinical staff were allowed to call for CRL × TA to be calculated and reported, but this option was never requested. Unsuspected breech presentations (nine cases) or cases of placenta praevia (one case) were always reported to the clinical staff. Relevant clinical information, including management and perinatal outcome, were recorded on computer cards for statistical evaluation with the Statistical Package for the Social Sciences. Intergroup differences were examined by χ^2 or t tests.

Apgar scoring and neonatal examination were done by hospital staff as part of routine care. Babies with birth weight on or below the fifth percentile[27] were classified as being small for dates.

Results

Table I shows the similarity of the characteristics of mothers in the two groups, the only significant intergroup difference being in social class distribution ($\chi^2 = 11{\cdot}74$; $p < 0{\cdot}05$), with more patients from social class V in the reported group. This difference was confined to multiparous patients ($\chi^2 = 13{\cdot}29$; $p < 0{\cdot}01$), and the only other significant difference between the two groups related to the fetal presentation among primigravidas (only) at the second stage examination, when more fetuses in the non-reported group presented by the breech ($\chi^2 = 4{\cdot}47$; $p < 0{\cdot}05$).

All babies were live born, although one large infant (birth weight 5320 g) was scored initially as Apgar 0 but was resuscitated and subsequently appeared to be normal at paediatric follow up. Two babies had major malformations: one had de Lange's syndrome, the other open spina bifida with microcephaly (the only perinatal death in the series). The birth weights of both these babies and all others with less major anomalies were normal.

There were no significant differences in obstetric management and outcome either between all the patients in the two groups (table II) or between the primigravidas alone in the two groups. There was also no detectable difference in management or outcome between the two groups when the pregnancies resulting in babies who were small for dates were considered separately (table III). The condition of the babies who were small for dates at birth was usually good, none requiring resuscitation or encountering subsequent major neonatal problems. Five of the 16 babies in the non-reported group who were small for dates were identified as such by abdominal palpation after the second stage of the ultrasound examinations but before labour.

TABLE I—*Characteristics of mothers in two groups*

	Reported (n = 433)	Non-reported (n = 444)	p
Mean (SD) age (years)	27·3 (5·1)	27·4 (4·9)	NS
Mean (SD) height (cm)	160·5 (6·3)	160·8 (5·9)	NS
Mean (SD) weight (kg)	69·1 (10·4)	69·4 (9·4)	NS
No (%) white	406 (94)	427 (96)	NS
No (%) in social class:			
I	40 (9)	39 (9)	< 0·05
II	108 (25)	111 (25)	
III	139 (32)	185 (42)	
IV	86 (20)	73 (16)	
V	56 (13)	36 (8)	
No (%) of smokers	117 (27)	119 (27)	NS
No (%) nulliparous	190 (46)	178 (40)	NS
Mean (SD) gestational age at:			
First ultrasound examination (weeks)	14·1 (3·1)	14·0 (3·1)	NS
Second ultrasound examination (days)	247·1 (5·4)	246·8 (5·6)	NS
Mean (SD) CRL × TA* (cm^2)	1945 (283)	1921 (299)	NS
No (%) with cephalic presentation	411 (95)	415 (93)	NS

*Crown to rump length × trunk area.

TABLE II—*Obstetric management and fetal outcome for all patients. (No stillbirths occurred in either group)*

	Reported* (n = 433)	Non-reported* (n = 444)
Antepartum admission:		
No (%)	43 (10)	46 (10)
Mean (SD) days	1·0 (0·2)	0·9 (0·2)
No admitted for suspected small for dates baby	3	5
Labour induced:		
No (%)	129 (31)	129 (29)
No (%) for suspected small for dates baby	12 (3)	9 (2)
No (%) undergoing elective caesarean section	17 (4)	24 (5)
Mean (SD) gestational age at birth (weeks)	39·3 (1·2)	39·5 (1·2)
No (%) in whom delivery was:		
Spontaneous vaginal	259 (60)	282 (64)
Instrumental vaginal	120 (28)	106 (24)
Caesarean section	54 (12)	56 (13)
Emergency caesarean section	37 (9)	32 (7)
Mean (SD) birth weight (kg)	3·43 (0·5)	3·42 (0·4)
No of boys	213	222
No (%) small for dates	17 (4)	16 (4)
No (%) with Apgar score < 7 at:		
1 minute	37 (9)	40 (9)
5 minutes	8 (2)	5 (1)
No of neonatal deaths		1

*Differences between the two groups were not significant.

TABLE III—*Comparison of obstetric management and fetal outcome of pregnancies resulting in small for dates babies between reported and non-reported groups. (No perinatal deaths occurred in either group)*

	Reported* (n = 17)	Non-reported* (n = 16)
Antepartum admission:		
No (%)	4 (24)	4 (25)
Mean (SD) days†	3·1 (1·7)	1·8 (0·8)
No admitted for suspected small for dates baby	2	3
No (%) with labour induced	4 (24)	7 (44)
Mean (SD) gestational age at delivery (weeks)	38·8 (1·1)	39·5 (1·5)
No (%) with spontaneous vaginal delivery	11 (65)	8 (50)
No (%) with operative delivery	6 (34)	8 (50)
No (%) with Apgar score < 7 at:		
1 minute	2	4
5 minutes	0	0

*Differences between the two groups were not significant.
†As there was a significant difference in the variances of the samples, a separate variance estimate was used in the calculation of the t value.

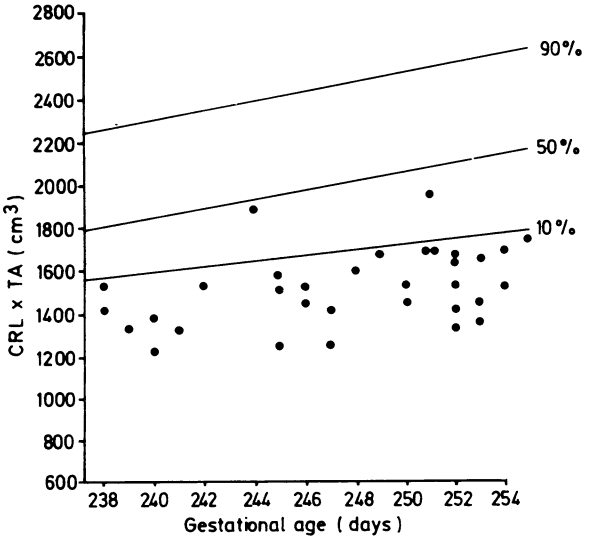
Of the 33 babies who were small for dates at birth, 31 had CRL × TA values below the predictive cut off (figure), giving a sensitivity of 94%. Of the 844 babies of normal birth weight, 763 had normal CRL × TA values (90% specificity). Crown to rump length and trunk area as alternative single variables in detecting fetuses that are small for dates were compared with CRL × TA, showing less effective detection by trunk area alone (79% sensitivity; 88% specificity) and by crown to rump length alone (66% sensitivity; 85% specificity). The CRL × TA values showed no significant differences in sensitivity and specificity between the reported group (94% and 92% respectively) and the non-reported group (94% and 89%).

Fourteen patients in the reported group underwent further measurements of crown to rump length and trunk area within the gestational age period for screening; repeated values were not included in calculation of sensitivity or specificity. In four of these the CRL × TA value was again abnormal and three of the babies were

small for dates at birth; normal CRL × TA values were obtained on the second occasion in the 10 other patients, all whose babies were of normal birth weight.

Discussion

Ultrasound measurement of fetal crown to rump length and trunk area is simple and quick (completed within four minutes) and, when performed only once during the third trimester, a feasible routine screening procedure. Interpreted in conjunction with routine early ultrasound assessment of gestational age,[28] its predictive accuracy at 34-36 weeks in identifying those fetuses that will be small for dates at birth has been confirmed in this trial in low risk pregnancies. The sensitivity of 94% and specificity of 90% compare favourably with the reported results of other ultrasound measurements. Pooling the results



Values for crown to rump length × trunk area (CRL × TA) obtained from small for dates babies at 34-36 weeks' gestation. The 10th percentile curve was used as the demarcation line.

of this study with those from our initial report[22] and that of high risk pregnancies[25] provided a total of 1553 single pregnancies, in which 114 of 122 small for dates babies (93%) were predicted correctly. Direct comparison with reports on other variables[16 17 19 29 30] was not possible because of differences in defining small for dates, selecting patients, the gestational age at the time of ultrasound examination, and choosing the critical cut off values to give the best compromise between sensitivity and specificity.

The confirmation in this study of our initial finding that CRL × TA is a more useful predictor of babies being small for dates than is trunk area alone contrasts with our more recent finding of similar results with CRL × TA and trunk area along in our series of high risk pregnancies.[25] A practical disadvantage of the CRL × TA method is that measurement of fetal crown to rump length in late pregnancy requires a static B scanner, and fewer systems of this sort are now used in obstetric ultrasound services as more real time scanning equipment comes into use. Thus the by no means unsatisfactory detection rates achieved by measuring only the fetal trunk have current relevance; they are consistent with the results in other series already referred to, including our own.

Despite confirming the good predictive accuracy of the two stage ultrasound examination schedule, the controlled trial failed to show any overall beneficial effect on fetal outcome or obstetric management from its introduction as a screening procedure. The study was carried out during part of the years 1979-81, when there were 10 006 deliveries in the hospital with only six perinatal deaths attributed to retardation of fetal growth in the absence of other major complications of pregnancy; three of these deaths occurred before 34 weeks, leaving just three others that could be regarded as possibly avoidable as the result of a screening procedure at that gestational age. A much greater number of patients would be needed to show an improvement in perinatal mortality among babies who are small for dates as a result of the screening procedure, but we hoped that the trial would show some less dramatic improvements in outcome, including perhaps a lesser need for operative delivery —for example, for fetal distress—improved condition at birth, fewer neonatal problems in small for dates babies, and, possibly, a reduced requirement for induction of labour as a result of positive prediction of normal birth weight. Disappointingly, no such improvements, as a result of CRL × TA measurement and reporting, could be shown. The only poor match between the two groups related to social class distribution, but this was hardly enough to mask any effect, beneficial or detrimental, of the screening procedure.

Although the number of infants who were small for dates was not large, growing awareness of the importance of retardation of fetal growth, perhaps stimulated further by interest in the trial and improvements in antepartum, intrapartum, and neonatal care, may have brought about an improved prognosis for small for dates babies at the hospital. Furthermore, if the trial prompted a general high degree of clinical suspicion for the small for dates fetus, early (before 34 weeks) referral for ultrasound examination may have excluded some cases from the trial. Such effects would have diluted the impact of the screening procedure.

In conclusion, we recommend the measurement, at between 34 and 36 weeks' gestation, of crown to rump length and trunk area when a static B scanner is available, or of trunk area alone when it is not, as an effective means of detecting fetuses that are small for dates whenever there is any factor associated with an increased risk of intrauterine growth retardation. Because these measurements need be made only on a single occasion more pregnancies may be evaluated than by serial ultrasound techniques, and the threshhold for referral for ultrasound study can therefore be kept low, thus including patients with relatively minor clinical and epidemiological risk factors. Without a much larger controlled trial, necessarily either over a longer period or on a multicentre basis with obvious organisational difficulties in either case, we are, however, unable to recommend this schedule as a routine screening method.

The study was supported by a project grant from the Medical Research Council. We also acknowledge the help of our medical and nursing colleagues in this hospital, the technical help of J E E Fleming and A J Hall in the ultrasound laboratories of the university department of midwifery, and the statistical help of Dr Irene Neilson of the University of Zimbabwe.

References

1 Adelstein P, Fedrick J. Antenatal identification of women at increased risk of being delivered of a low birthweight infant at term. *Br J Obstet Gynaecol* 1978;**85**:8-11.
2 Low JA, Galbraith RS. Pregnancy characteristics of intrauterine growth retardation. *Obstet Gynecol* 1974;**44**:122-6.
3 Neilson JP. Ultrasonic screening for fetal growth retardation. *Perinatology/Neonatology* 1979;**3**:42-7.
4 Campbell S. Physical methods of assessing size at birth. In: *Size at birth*. Amsterdam: Associated Scientific Publishers, 1974:275-93. (Ciba Foundation Symposium No 27.)
5 Hall M, Chng PK, MacGillivray I. Is routine antenatal care worthwhile? *Lancet* 1980;ii:78-80.
6 Rosenberg K, Grant JM, Hepburn M. Antenatal detection of growth retardation: actual practice in a large maternity hospital. *Br J Obstet Gynaecol* 1982;**89**:12-5.
7 Rosenberg K, Grant JM, Tweedie I, Aitchison T, Gallacher F. Measurement of fundal height as a screening test for fetal growth retardation. *Br J Obstet Gynaecol* 1982;**89**:447-50.
8 Barnard WP, Logan RW. The value of urinary oestriol estimation in predicting dysmaturity. *Br J Obstet Gynaecol* 1972;**79**:1091-4.
9 Josimovitch JB, Kosor B, Boccella L, Mintz DH, Hutchison DL. Placental lactogen in maternal serum as an index of fetal health. *Obstet Gynecol* 1970;**36**:244-50.
10 Bischof P, Klopper A. Placental proteins. In: Studd J, ed. *Progress in obstetrics and gynaecology 3*. Edinburgh: Churchill Livingstone, 1983:57-72.
11 Russell JGB, Lewis GJ. Radiological assessment of fetal growth retardation. *Clin Radiol* 1981;**32**:567-9.

12 Gross TL, Sokol RJ, Wilson MV, Kunhert PM, Hirsch V. Amniotic fluid phosphatidylglycerol: a potentially useful predictor of intrauterine growth retardation. *Am J Obstet Gynecol* 1981;**140**:277-81.
13 Verma UL, Tejani NA, Chattejee S, Weiss RR. Screening for SGA by the roll-over test. *Obstet Gynecol* 1980;**56**:591-4.
14 Gruenwald P. Pathology of the deprived fetus and its supply line. In: *Size at birth*. Amsterdam: Associated Scientific Publishers, 1974:3-19. (Ciba Foundation Symposium No 27.)
15 Hansmann M. Measurements of fetal age, growth and nutrition. In: Beard RW, Campbell S, eds. *The current status of fetal heart rate monitoring and ultrasound in obstetrics*. London: Royal College of Obstetricians and Gynaecologists, 1977:165-89.
16 Wladimiroff JW, Bloemsa CA, Wallenburg HCS. Ultrasonic assessment of fetal head and body sizes in relation to normal and retarded fetal growth. *Am J Obstet Gynecol* 1978;**131**:857-60.
17 Varma TR, Taylor H, Bridges C. Ultrasound assessment of fetal growth. *Br J Obstet Gynaecol* 1979;**86**:623-32.
18 Wittmann BK, Robinson HP, Aitchison T, Fleming JEE. The value of diagnostic ultrasound as a screening test for intrauterine growth retardation: comparison of nine parameters. *Am J Obstet Gynecol* 1979;**134**:30-5.
19 Kurjak A, Kirkinen P, Latin V. Biometric and dynamic ultrasound assessment of small-for-dates infants: report of 260 cases. *Obstet Gynecol* 1980;**56**:281-4.
20 Campbell S, Wilkin D. Ultrasonic measurement of fetal abdomen circumference in the estimation of fetal weight. *Br J Obstet Gynaecol* 1975;**82**:689-97.
21 Warsof SL, Pearce JM, Campbell S. The present place of routine ultrasound screening. *Clin Obstet Gynaecol* 1983;**10**:445-57.
22 Neilson JP, Whitfield CR, Aitchison TC. Screening for the small-for-dates fetus: a two-stage ultrasound examination schedule. *Br Med J* 1980;**280**:1203-6.
23 Neilson JP. Detection of the small-for-dates twin fetus by ultrasound. *Br J Obstet Gynaecol* 1981;**88**:27-32.
24 Neilson JP. Detection of the small-for-gestational-age twin fetus by a two-stage ultrasound examination schedule. *Acta Genet Med Gemellol (Roma)* 1982;**31**:235-40.
25 Neilson JP, Munjanja SP, Mooney R, Whitfield CR. Product of crown-rump length and trunk area: ultrasound measurement in high risk pregnancies. *Br J Obstet Gynaecol* 1984;**91**:756-61.
26 Fleming JEE, Hall AJ, Robinson HP, Wittmann BK. Electronic area and perimeter measurement of ultrasonic images. *JCU* 1978;**6**:379-84.
27 Thomson AM, Billewicz WZ, Hytten FE. The assessment of fetal growth. *Br J Obstet Gynaecol* 1968;**75**:903-16.
28 Neilson JP, Hood VD. Ultrasound in obstetrics and gynaecology: recent developments. *Br Med Bull* 1980;**36**:249-55.
29 Duff GB, Evans LJ. Prediction of the extremes of birthweight from a single ultrasound examination at 34 weeks of gestation. *Aust NZ J Obstet Gynaecol* 1981;**21**:85-7.
30 Eik-Nes SN, Persson PH, Grottum P, Marsal K. Prediction of fetal growth deviation by ultrasonic biometry 11 clinical application. *Acta Obstet Gynecol Scand* 1983;**62**:117-23.

(*Accepted 14 August 1984*)

Spina bifida and anencephaly in Scotland

VERA CARSTAIRS, SUSAN COLE

Abstract

Data obtained from routine sources showed that from 1971 to 1982 the birth prevalences of spina bifida and anencephaly in Scotland fell. When known terminations after routine α fetoprotein screening were added to total births the adjusted birth prevalence could be calculated. In 1974-82 this fell by 40% for spina bifida (3·0-1·8) and 36% for anencephaly (2·2-1·4). These findings were compared with data on birth prevalences in England and Wales, Northern Ireland, and Glasgow.

The fall in birth prevalences of spina bifida and anencephaly over the past decade appears to have been due both to a true fall in incidence as well as to increased screening and termination for these conditions.

Introduction

From 1971 to 1982 the birth prevalence—the number of affected infants, born dead or alive, expressed as a proportion of all live births and stillbirths—of spina bifida and anencephaly fell substantially in Scotland. This coincided with the introduction of a widespread antenatal α fetoprotein screening programme. It was not clear whether the observed fall was wholly related to screening and termination of affected pregnancies or whether a true fall in incidence had occurred as well.

The use of the Scottish neonatal discharge record (form SMR11) in providing information on the incidence of congenital malformations has been discussed previously.[1] In the present study we extended the examination to other routine records and included information from the screening laboratories on termination of affected pregnancies. We thus examined trends in the birth prevalence of spina bifida and anencephaly in Scotland.

Information Services Division, Common Services Agency, Scottish Health Service, Trinity Park House, Edinburgh EH5 3SQ
VERA CARSTAIRS, BSC, assistant director
SUSAN COLE, MD, FRCOG, community medicine specialist

Correspondence to: Mrs V Carstairs.

Methods

Spina bifida—By searching Scottish neonatal discharge records (SMR11s) we obtained the number of liveborn infants with spina bifida. Supplementary information was obtained by searching general hospital discharge summaries (SMR1s), from which episodes of care in paediatric or other units could be gathered. The records allowed patients to be identified and repeat episodes of hospital care to be excluded. The Scottish neonatal discharge record was not introduced until 1970 and had achieved 75% national coverage of liveborn infants by 1980, but SMR1 records were complete for the whole study period. The two sources of data were cross checked against identifiable information on deaths from the General Register Office (Scotland); this source showed the few cases not treated in hospital. We included in our findings all cases of spina bifida with or without hydrocephaly (International Classification of Diseases 741.0, 741.9) recorded as either a main or a secondary cause. The above sources were believed to provide a fairly accurate count of liveborn infants with spina bifida as it was assumed that all infants with spina bifida would receive hospital treatment at some time unless they were expected to die within a short period. The total birth prevalence (the number of affected infants, born dead or alive, per 1000 live births and stillbirths) was achieved by adding the number of stillbirths with spina bifida each year. Data on deaths of babies with spina bifida also allowed us to estimate numbers of survivors.

Anencephaly—Numbers of stillbirths and deaths in babies with anencephaly were abstracted from the annual reports of the Registrar General for Scotland.

In addition, data on total births with and total cases of both conditions were provided by Greater Glasgow Health Board, which is one of the centres for the European Collaborative Study (F Hamilton, personal communication).

Results

Table I shows the birth prevalences of spina bifida and anencephaly in Scotland. Between 1971 and 1982 the birth prevalence of spina bifida fell from 3·0 to 1·1/1000 total births and that of anencephaly from 2·6 to 0·2/1000. The figure shows the comparable birth prevalences for 1971-82 of spina bifida (top) and anencephaly (bottom) (obtained from published studies that used different methods of data collection) for Glasgow (F Hamilton, personal communication), England and Wales,[2] and Northern Ireland.[3 4] The birth prevalence of spina bifida appeared to have fallen in all areas. In 1971 the prevalence in Scotland greatly exceeded that in England and Wales, but current prevalences are similar for both countries. The prevalence in Northern Ireland exceeded that in Scotland in all years. The prevalence in