

Trends in termination of pregnancy for neural tube defects in England and Wales

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Objective

Neural tube defects (NTDs) affect approximately 300,000 pregnancies worldwide each year. Many of these pregnancies are lost to miscarriage or termination of pregnancy (TOP). Here, we have analysed the trends of termination of pregnancy for NTDs from the national data for England and Wales.

Methods

Data for all terminations for residents in England and Wales for the period of 2007-2017 were obtained through Health and Social Act 4 forms (HSA4) submitted to the Department of Health. Using the ICD-10 codes, terminations for NTDs were selected for analysis: Q00 (anencephaly), Q01 (encephalocele) and Q05 (spina bifida). The statistical test Chi-squared was performed using SPSS-v25, where appropriate.

Results

In the 11-year period, there were 2,080,844 terminations recorded for residents in England and Wales. There were 28,866 terminations under Ground E; of which 4,425 (15.33%) had at least one diagnosis of NTD. The number of overall NTD cases increased over the time period from 308 in 2007 to 517 in 2017 (67.9%), including the rise in anencephaly (87.1%); encephalocele (52.9%) and spina bifida (49.6%). There were significantly more terminations for anencephaly at 10-12 weeks gestation compared to other gestational ages ($p < .0001$). Whereas terminations for spina bifida were significantly more likely to be carried out at a later gestation (≥ 20 weeks) ($p < .0001$), hence more likely by medical method and requiring fetocide. Interesting results were seen when comparing maternal ethnicity. There were significantly fewer cases of encephalocele ($p = .001$) but significantly more cases of spina bifida ($p = .007$) in the White population.

Conclusion

With the availability of routine prenatal ultrasound, the termination for NTDs is on the rise in England and Wales, in spite of the health advice of periconceptional folic acid. This study demonstrates the need for implementation of further programmes to increase public health awareness of folic supplementation and government initiation of fortification to reduce NTDs. Also, training for earlier ultrasound detection of spina bifida should be provided, to reduce the prevalence of late gestation at termination.

