

Perinatal and neonatal outcomes of neural tube defects

Melekoglu R, Eraslan S, Celik E, Simsek Y
Inonu University Faculty of Medicine, Malatya, Turkey

Objective

We aimed to demonstrate the perinatal and neonatal outcomes of patients who were diagnosed neural tube defects in mid trimester fetal ultrasound scan and refused request for termination of pregnancy.

Methods

The records of 69 patients were reviewed retrospectively who were detected neural tube defects in mid trimester fetal ultrasound scan and preferred continuation of the pregnancy after comprehensive counseling about the possible prognosis and treatment options during the period between January 2011- February 2016 at Inonu University School of Medicine Department of Obstetrics and Gynecology. Continuous and categorical variables were measured as median and mean with standard deviation. Statistical analyses were performed using SPSS software (Statistical Package for the Social Sciences, Version 20; SPSS Inc., Chicago, IL).

Results

Data were collected from 69 patients who were diagnosed neural tube defects in midtrimester fetal ultrasound scan and preferred continuation of the pregnancy during the period between January 2011- February 2016 at Inonu University School of Medicine Department of Obstetrics and Gynecology. Of these patients 66. 7% had 25-35 years old; 95. 7% had multiparous; 1, 4% had history of fetus having NTD in previous pregnancies; 79, 8% used preconceptional folic acid use and 18, 8% had consanguinity with her parent. Median gestational age at diagnosis was 20 (min 15- max 24) and 91, 6% of cases admitted for the reference due to abnormal ultrasonography finding. Of these patients 4. 3% had cervical; 1. 4% had thoracic; 13, 0% had thoracolumbar; 34, 8% had lumbar; 40, 7% had lumbosacral and 5, 8% had sacral spina bifida. Lemon sign was detected in 89, 8% of these patient, banana sign was detected in 85, 5% of these patient, ventriculomegaly was detected in 92, 7% of patients and pes equinovarus deformity was detected in 21, 7% of these patients in mid trimester fetal ultrasound scan. There were 7 (10, 1%) neonatal death in these patients. Median time of operation was 1 day (mean 1, 67; range 1-21). Meningomyelocele closure procedure was the most performed surgery in the postnatal period (92%). The overall ventriculoperitoneal shunt requirement rate was detected 33, 8. Of these patients who were underwent surgical procedure, 30, 7% had paraplegia; 51, 6% had neurogenic bladder and 6, 4% had infections due to surgery.

Conclusion

The results of this study demonstrated perinatal and neonatal outcomes of fetuses with NTD who were not terminated by the preference of the family in midtrimester. Comprehensive counseling of these patients about the perinatal and neonatal prognosis in a non-directive manner is crucial. The experience of our centre would be beneficial as a tool for non-directive counseling of these patients when considering about the antenatal/postnatal care options and postnatal prognosis.