



Registries of cases with neural tube defects in Denizli, Turkey, 2004-2010

A.G. Tomatir¹, B. Kiray Vural², I. Acikbas¹ and B. Akdag³

¹Department of Medical Biology, Faculty of Medicine, Pamukkale University, Denizli, Turkey

²Healthcare Services Vocational School, Denizli, Turkey

³Department of Biostatistics, Faculty of Medicine, Pamukkale University, Denizli, Turkey

Corresponding author: B. Kiray Vural

E-mail: bvural@pau.edu.tr

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ABSTRACT. Neural tube defects (NTD) are among the most common congenital abnormalities, with an incidence of 3 per 1000 live births in Turkey. In a study of major congenital abnormalities in the city of Denizli, Turkey, abnormalities of the central nervous system are particularly common (31.1%). The objective of this study was to develop a registry of cases with NTDs in Denizli. Cases that had been diagnosed with NTD between January 2004 and September 2010 in State Hospitals of Central Denizli were retrospectively examined. The diagnoses were established based on the ICD-10 criteria. A total of 250 subjects with NTD were identified, including 123 (49.2%) females and 127 (50.8%) males with a mean age of 13.72 ± 15.62 years (age range 1-81 years). Interestingly, spina bifida constituted a significant percentage of the cases (149 cases; 59.6%). In addition, 10 (4.0%) cases had hydrocephalus plus spina bifida. The second most common diagnosis was microcephaly, which included 70 cases (28.0%). Encephalocele was observed in only 2 cases (0.8%). Development of NTD is influenced by nutrition, socioeconomic factors, and the use

of folic acid during the peri-conceptual period. Studies examining the effect of these factors on NTD in Turkey and a review of primary prevention measures are necessary.

Key words: Folic acid; Neural tube defect; Registry; Spina bifida; Turkey