

We report the findings of a total population survey of Thugbah community in the Eastern Province of Saudi Arabia (SA) to determine its point prevalence of neurological diseases. The major medical diseases that may be neurologically relevant were diabetes mellitus, hypertension, and connective tissue disorders. Central nervous system (CNS) malformations (0.49) such as hydrocephalus and meningomyelocele were more prevalent than spinal muscular atrophy (0.13), congenital brachial palsy (0.13) and narcolepsy (0.04). The similarity between the demographic characteristics of Thugbah and other parts of SA suggest that the findings may be generalizable for all of SA. However, when comparing our results with other communities, age and sex adjustment would be needed and differences in consanguinity rates should also be considered. The demographic characteristics of Thugbah community were similar to those in other parts of SA. The overall crude prevalence ratio (PR) for all forms of neurological disease was 131/1,000 population. During this two-phase door-to-door study, all Saudi nationals living in Thugbah were first screened by trained interviewers using a pretested questionnaire (sensitivity 98%, specificity 89%) administered at a face-to-face interview. Individuals with abnormal responses were then evaluated by a neurologist using specific guidelines and defined diagnostic criteria to document neurological disease. Stroke, Parkinson's disease, and Alzheimer's disease were uncommon with respective PRs of 1.8, 0.27 and 0.22.