

## Albanian project on epidemiology of some neurological disorders

**Background:** Epidemiological studies on neurological disorders in Albania are scanty and there are no comparative findings in the same population.

**Methods:** A door-to-door survey was undertaken in two separate geographic areas (Tirana and Saranda) with different socio-cultural and economical background. Two random samples of the local population underwent a structured interview to ascertain headache, epilepsy, stroke, dementia, Parkinson's disease, multiple sclerosis, polyneuropathy and cerebral palsy. Each diagnosis was made using standard diagnostic criteria for epidemiological studies. For each case, the diagnosis was confirmed by neurological examination and, where available, the review of personal medical records. Overall lifetime prevalence ratios with 95% confidence intervals (CI) were calculated by study area for each clinical condition.

**Results:** 9869 individuals were screened (Tirana 4953; Saranda 4916). The sample included 4867 men aged 1-91 years (mean 38.7) and 5002 women aged 1-96 years (mean 37.8). The overall crude prevalence ratios (per 1,000 population) were, in decreasing order: headache 257.8 (95% CI 249.2-266.5), polyneuropathy 35.9 (95% CI 32.2-39.5), epilepsy 15.2 (95% CI 12.8-17.6), stroke 13.3 (95% CI 11.0-15.5), dementia 11.0 (95% CI 9.0-13.1), Parkinson's disease 8.5 (95% CI 6.7-10.3), cerebral palsy 5.3 (95% CI 3.8-6.7), and multiple sclerosis 0.3 (95% CI 0.1-0.9). Except for polyneuropathy (Tirana 43.8; Saranda 27.9), ratios were not significantly different in the two study areas.

**Conclusions:** The prevalence of some neurological disorders in Albania tends to differ from other European countries. Differences may be explained study design, structure of the target population and/or differing genetic and environmental factors.

## METHODS 1

A door-to-door survey was undertaken in two separate geographic areas (Tirana and Saranda) characterized by different socio-cultural and economical background.

Two random samples of the local population (each of 5,000 inhabitants) underwent a structured interview to ascertain some clinical conditions.

The interviewers were all neurologists and residents of neurology.

## METHODS 2

Each diagnosis was made using standard diagnostic criteria for epidemiological studies.

## METHODS 3

Screening Instrument

Previously Validated  
Questionnaire  
&  
Neurological  
Examination

For each case, the diagnosis was confirmed by neurological examination and, where available, the review of personal medical records.

Sensibility: 94%

Specificity: 86%



## RESULTS Prevalence

The overall crude prevalence ratios (per 1,000 population) were, in decreasing order,

- headache 258 (95% CI 249.2; 266.5),
- polyneuropathy 36 (95% CI 32.2; 39.5),
- epilepsy 15 (95% CI 12.8; 17.6),
- stroke 13 (95% CI 11.0; 15.5),
- dementia 11 (95% CI 9.0; 13.1),
- parkinsonism 9 (95% CI 6.7; 10.3),
- a • cerebral palsy 5 (95% CI 3.8; 6.7),
- multiple sclerosis 0.3 (95% CI 0.1; 0.9).

a Except for polyneuropathy (Tirana 44; Saranda 28), ratios were not significantly different in the two study areas.

## CONCLUSION

- 10000 people are checked (9869 answered).
- We established epidemiological data for 8 neurological disorders in Albania.
- There is not any significative differences between two districts in study, except polyneuropathy.
- The prevalence data of Dementia and Parkinsonism are similar with our previous studies
- We found a higher MS prevalence in comparison with our previous studies
- Differences with other international studies may be explained by study design, structure of the target population and/or differing genetic and environmental factors.
- Further investigations must be done in the future in order to ascertain and correlate better our data according to specific diagnosis, age groups, etc.